

TEXTILE BULLETIN



Vol. 56

April 1, 1939

No. 3

Lift The LOOM Tax!



Abolishes the tax in oil spot "seconds" imposed on your looms by dripping, leaking oil. Drip-less and waste-less, NON-FLUID OIL keeps off goods, outlasting oil 3 to 5 times—saving money on oil bills too.

The fact that most mills use NON-FLUID OIL speaks for itself. *Write for free testing sample and instructive bulletin.*

See our exhibit Booth 109—Southern Textile Exposition

NEW YORK & NEW JERSEY LUBRICANT CO.
292 MADISON AVENUE NEW YORK

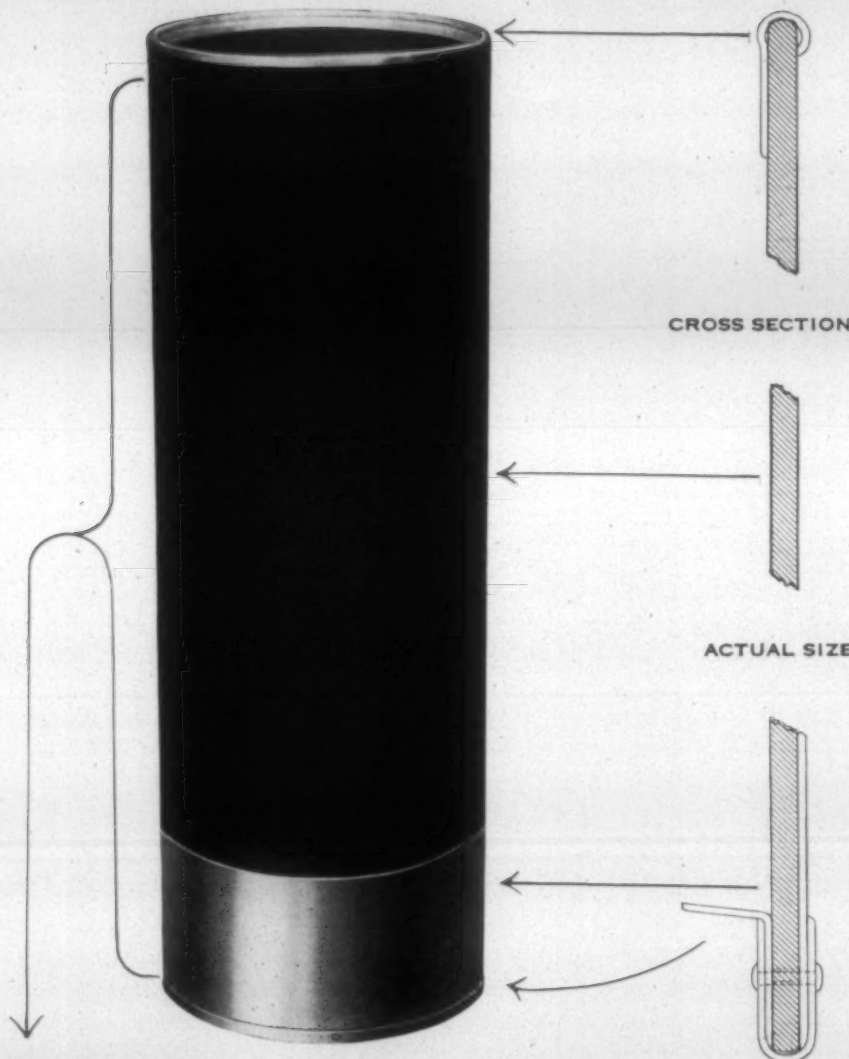
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POINT *for* POINT~~~



Genuine cold drawn steel top rim in one piece, strong and yet perfectly smooth inside, with a tight roll over the top edge of the barrel.

CROSS SECTION

Treated and laminated board barrel of high crushing strength, smooth and strong without excess weight. Standard maroon color--only.

ACTUAL SIZE

One-piece heavy cold drawn steel bottom rim is riveted through the 6" metal kick band to the can barrel and stamped steel bottom. This bottom rim is the steel shoe that receives the most wear, which it is especially designed to take.

SONOCO ROVING CANS SAVE MONEY

—because they are scientifically designed and constructed to stand the gaff at those points, **where roving cans wear out.**

The lower initial or investment cost of the SONOCO can is achieved without any sacrifice to its utility value and long life.

SOUTHERN TEXTILE EXPOSITION

Greenville, S. C. April 3-8
Booth 103

KNITTING ARTS EXHIBITION

Philadelphia April 17-21
Booths 96-97-98-99

SONOCO MAKES EVERYTHING IN PAPER CARRIERS

SONOCO PRODUCTS COMPANY

HARTSVILLE
S. C.



DEPENDABLE SOURCE OF SUPPLY

Everybody's
On the Way

To the Greenville
Textile Show

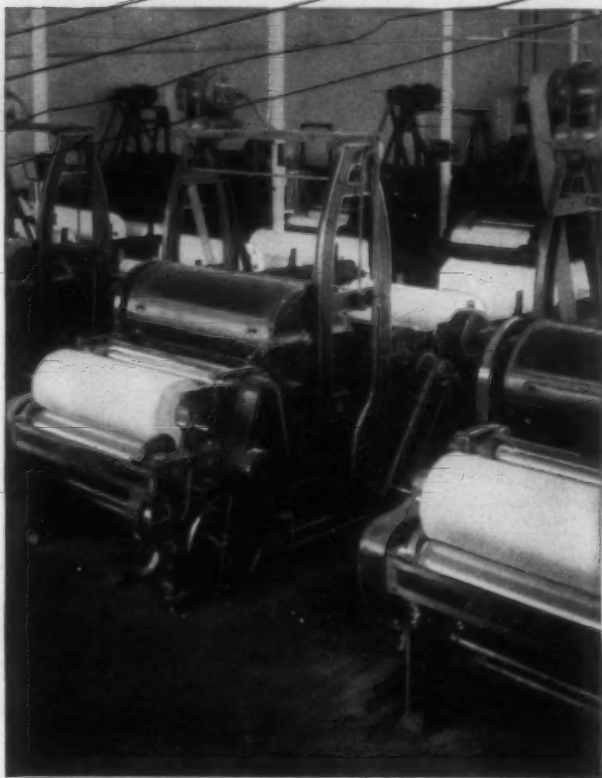
to See
the

New XD
Draper Loom



THROUGHOUT THE MILL

FEWER BROKEN ENDS



PICKERS where cotton can be treated more effectively, where each individual fibre can be treated.

Whether Running Cotton, Straight Rayon, or a Mix

THE BRITTLINESS of stock long in storage is largely overcome, the fibres rendered more flexible and easier to draft, when treated by the Texspray System of Fibre Conditioning.

Texsprayed stock contains a higher percentage of long fibres. With fewer short fibres, fly is lessened. So also is the static nuisance.

Experience proves that the most effective place to treat fibre is in the beater chamber of the pickers. Here, each individual fibre, spread out fanwise, can be treated.

Visit a Texspray installation. See for yourself the lessened number of broken ends.

The Texspray System is available only to mills located in cotton manufacturing centers of the United States. If so located, you are invited to write: The Texas Company, 135 East 42nd Street, New York City.



THROUGHOUT ALL PROCESSES subsequent to the picking, Texspray keeps the air clear, controls the static.



WHEN WEAVING Texaco Texsprayed stock, looms produce a smoother product in which slubs are practically eliminated.

THE MARCH ISSUE of "Lubrication" magazine is devoted to textile mill lubrication. If you are not receiving "Lubrication" regularly, write The Texas Company. It is free.



TEXACO TEXSPRAY SYSTEM OF FIBRE CONDITIONING

Texaco Dealers invite you to tune in The Texaco Star Theatre — a full hour of all-star entertainment — Every Wednesday Night — Columbia Network — 9:00 E.S.T., 8:00 C.S.T., 7:00 M.S.T., 6:00 P.S.T.



Retiring President Reviews Activities of Alabama Association

Address of Retiring President R. W. Jennings at the Annual Convention of the Alabama Cotton Manufacturers' Association on March 16th.

WHILE there always has been and always will be a need for trade associations, the economic, political, governmental and other developments of the past few years have emphasized the necessity for the directing heads of the units in an industry to work harmoniously together; the vital need of a clearing house through which members of such a group may be promptly and properly informed of developments in the fast-moving and constantly changing world of today; the value of a recognized agency to interpret the concerted thought and policy of the group to the public, to represent the group in the ever increasing relations with various governmental agencies, and by performing specific services for its members individually and collectively.

All of these services for the textile industry broadly are being carried out efficiently and effectively by the general associations which we individually, in the great majority, support fully; and our sister Southern textile States have their own indispensable organizations, and there are several useful functional associations in the industry. Right here in Alabama we have the Associated Industries of Alabama, of which our vice-president, Paul A. Redmond, is president, and of which Leon Gilbert is executive secretary. That organization functions most effectively for industry in this State as a whole, and in passing I would like to express to them my appreciation of their co-operation with our own organization.

There are always, however, problems and needs peculiar to an individual industry within a given State which only a State association of that industry can meet and solve, and which can best be met by having a full-time executive secretary supported and directed by a representative group of members reflecting the sentiment and policy of the various types and sizes of plants and the various geographical areas of the State.

A recognition of all of these things, and of the unfairness of imposing upon a few of our own group the responsibility of taking more than a fair share of their time away from their own businesses in order to represent

us, particularly in the face of an almost total absence of assistance from the group as a whole, led to a decision to reorganize this association and set it up on a business-like basis in keeping with the procedures that have been found successful elsewhere.

As your first president under the new program, my own work, in company with our board of directors, has been largely of an organizational nature, so that I am not able to report a great deal in the way of actual accomplishment beyond that stage. However, I am happy to say that I believe we have made a good start, that I think our fundamental policies are sound, and that with your continuing interest and support, this organization will grow in usefulness and service to our individual mills, to the industry of the State, and to the general welfare of the industrial, agricultural and social life of Alabama.

The first few months of the past year were concentrated upon the selection of a man as full-time secretary. After considering many prospects and applicants, your board of directors selected Dwight M. Wilhelm, of Huntsville, Ala., and immediately established executive offices in Montgomery, as the logical location of our headquarters. Practically all of you have met Mr. Wilhelm. He is a native of our State, a graduate of the University of Alabama, and has had extensive experience in associational work. In the process of acquainting himself with the mills and mill people of the State, he has been visiting around the State as far as has been practicable, and you already have had many evidences of his activities for our organization. I am confident that as we move into broader fields of service and clarify our program and policies, you will find him, as we have already found him, competent for the task and eager and enthusiastic in the "readiness-to-serve" that marks any successful trade association executive. For him I ask your fullest support and co-operation. I hope each one of you will not only respond to his requests for your co-operation, but that you will do him as well as the association and the industry the service of giving freely of the benefit of your experience and opinion and constructive criticism.

Mr. Wilhelm and the chairmen of our various working committees will report to you in detail on the activities of our organization, and I know you will find these reports of great interest and practical value. I would like to

comment on several of the broader phases of our association's work during the past year and to mention a few of our opportunities and responsibilities in the future as I see them.

It has been especially encouraging to your officers to note the reception with which this organization has been received, not only throughout industry in the State, but among our important State officials, from the governor down. Here I would like to say that I feel that Alabama is particularly fortunate in having a man of the caliber and ability and integrity of Frank Dixon as its chief executive. It is particularly encouraging to us to find in him a man who understands the real needs of our State, with an eagerness to be fair and just, and I wanted to take this occasion to express appreciation of his courtesy, consideration and co-operative spirit toward us.

In the short time that we have had to work, we have had contact with a number of our other State officials, department heads and legislators, and I am glad to report a general attitude of sympathetic understanding of and co-operation with our aims and objectives toward a closer co-ordination and greater utilization of the major elements in our State's life for developing better mutual relationships and the creation of greater happiness, security and prosperity for our State and its people as a whole.

Within our own State, it is gratifying to have experienced such a whole-hearted response to our activities and our program. There are approximately 1,900,000 spindles in our State, and more than 1,600,000 of these are in mills that are already members of our association. Our membership is representative of all types of mills, large and small, and is well distributed throughout the State geographically. This is indeed evidence of the whole-hearted co-operation that is essential to the success of an organization such as this. The effectiveness and the influence and the prestige of a trade association is in direct ratio to the extent to which it is actively supported by the members of the industry. Not only are you supporting the association financially through your dues, but you are taking the next step which is equally important by giving of your time and advice. Here I want to pay special recognition to the work done by our other officers and by the members of the several committees that have been set up—the legislative committee, the public relations committee, the joint traffic committee, the committee on arrangements for our annual meeting, and the others—and to the splendid manner in which you as individuals have responded to our calls upon you. No man could have had a finer group of associates than I have had in this work, and to you goes the full credit for the excellent start we have made.

There are several major opportunities for constructive activity and service for this organization in the years to come, over and above our own internal affairs. One of these is to work out a closer co-operation with the farmers of our State. All of us recognize that agriculture is the basis of our economy. When the farmer prospers, we prosper, and when the farmer suffers, we suffer. The problem, of course, is larger than any one State, and exceeds the capacity of a State association; nevertheless I

feel strongly that there is still much we, as an association, can do to help and encourage the farmers of our own State into a higher standard and better conditions, and I hope this will be one of the major objectives of this association. I know that for such a program we can rely on the full co-operation of our department of agriculture and other interested State departments.

The subject of Industrial Relations is of vital importance to each one of us and to the welfare of our industry and our State as a whole. It is true that, in our own individual plants our relations with our employees and with our local citizens must and should be a local matter. At the same time, I feel that one vital function of our State association should be to do everything possible on a broader scale to bring about a better understanding between industry and labor and the public. There are certain fundamental principles in these relationships that it would do all of us well to review and apply, locally and generally, and I think our association headquarters should properly serve as an agency of information for us, as well as being an agency for interpreting true facts about the industry to the general public.

I feel very strongly that we could, with profit, give individual and concerted attention to the training of our operating executives—the superintendents, overseers and other supervisory personnel in our mills. They are, after all, the key points in the operation of our plants. Their standards, their attitudes, their methods, their leadership or lack of it, after all set the pace of our plant and personnel efficiency and influence more than anything else, the morale of our organizations. Anything that is done to elevate their standards, broaden their viewpoints, and improve their efficiency will certainly be reflected throughout our entire organization.

In conclusion I would like to read what I consider to be an excellent definition of a trade association:

"A trade association is an organization of producers or distributors of a commodity or service upon a mutual basis for the purpose of promoting the business of their branch of industry and improving their service to the public through the compilation and distribution of information, the establishment of trade standards and the co-operative handling of problems common to the production or distribution of the commodity or service with which they are concerned."

As we go forward in this organization of ours, I hope we will constantly work toward putting that objective into effect, insofar as our needs and opportunities permit. It has been a great pleasure and a distinct honor for me to serve as your president for the past year. To my successor I pledge my full support, and I look forward to seeing this organization grow rapidly into an agency of maximum usefulness and value to the industry of our State and the people connected with it.

Carolina Group Discusses

MILL OPERATION PROBLEMS

At Spring Meeting

Northern N. C.-Virginia Division of Southern Textile Association Discusses Problems of Lubrication, Carding, Spinning, and Weaving at Meeting in Greensboro, N. C.

THE Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association was held at the King Cotton Hotel, Greensboro, N. C., on March 4th. W. J. Jennings, of Gibsonville, N. C., chairman of the Division, presided, and a very interesting and instructive program was enjoyed by approximately two hundred operating executives of the textile mills of the area.

A moving picture on lubrication was shown through the courtesy of the Socony-Vacuum Oil Company, illustrating the principles of lubrication of moving parts, and showing the action of various types of lubricants under different operating conditions. This film has been shown at a number of the Divisional meetings of the Southern Textile Association during the past year, and has been received with a great deal of interest.

Following the showing of the film, the chairman requested F. H. Trewin, of the Socony-Vacuum Oil Company, to make a few remarks concerning textile mill lubrication. A stenographic report of the meeting follows:

F. H. Trewin, Technical Manager, Southeastern Division, Socony-Vacuum Oil Company, Baltimore, Md.: If you keep in mind that principle of the oil wedge, which is the basic function or basic problem in all lubricating conditions, you will find that your selection of the proper type of oil is a very simple matter.

Let's apply it to the textile mill. We have problems in the cotton mill such as spindles, shafting, electric motors, etc. The moving parts should be kept covered with a film of oil, because where we have a film we have a complete coating and there is no rubbing of the metal surfaces. You are actually jacking up the shaft by a hydraulic wedge. For spindles you need oil of a certain viscosity. You can shoot up your power consumption immensely by obtaining too heavy viscosity. At least fifty per cent of the power, or possibly more, is consumed in the spindle bases. If we have too heavy a load the power can shoot up tremendously, and power, of course, is one of the big items of cost in a textile mill. A few years ago spindle oil of light viscosity was used. Then came the long-draft spinning, with heavier packages and higher speeds. What does that mean? It means that when we get heavier packages we are imposing very high loads on the spindle bolsters. We can not get away from that. And the packages are not perfectly symmetrical;

in other words, there are high unbalanced centrifugal loads developed in the package. Under those conditions we have in some instances found a necessity for increased viscosity for those conditions and also to prevent pumping of the oil in the spindle bases, so that it will not be pumped out as with an atomizer. So we began using oils of heavier viscosity. The higher the viscosity, however, the more power will be consumed.

Temperatures & Oils

Normally speaking, our spinning rooms are much hotter in summer time than in winter time. I mean there may be as much difference as 15 degrees, and the room temperature may have a decided effect upon the spindle



W. J. Jennings, Chairman



J. O. Thomas, Secretary

bolsters. A difference of 15 degrees, when the temperature is around 85 or 90 or 100, may have a difference of as much as 30 seconds in the viscosity of the oil in the spindle bolster. So if you are using too light an oil in the summer and are getting vaporization, which will result in poor yarn, wear, and so forth, you might use a heavier oil. But as we get over to the fall and start in the winter months, it might pay us to start adding a lighter viscosity oil to that spindle bolster, so that by the time we get into the winter months we have lighter oil in there, which in the operating of the bolster maintains the same viscosity. Then, as spring comes on, use a heavier oil. By this practice you can maintain more or less uniform viscosity and reduce power consumption.

Cleaning Spinning Spindles

What we need in our spindles is not only viscosity but stability. We all know that if we get black oil in our spindle bolsters it shoots up power consumption considerably. It may mean as much as 10 or 15 per cent differ-

ence in the power consumption in the spinning room. It pays to use a high grade of spindle oil, but don't think that that oil is going to last indefinitely. It pays to clean the spindle bases, to take a suction pump and suck out that spindle oil, maybe every two years or three years or five years. Take out the spindle occasionally and look at the spindle blade to see if the oil is getting black. I do not care whose oil it is, it pays to pump out your base and put in fresh oil occasionally. Incidentally, if that is done every spindle should go back into its own bolster. Don't wash them in kerosene. Wipe them off and take a little brush and run through the bolster, in the spindle oil. If you have such bad deposits that you have to use some solvent, kerosene is a very poor solvent to begin with. If you do have to clean them with anything of that kind, don't put that raw metal back into the bolster again. Be sure that the metal has been wiped and then oiled. When you use kerosene or some other solvent you get right down to raw metal. You would not think of putting kerosene into your automobile. When you use a solvent you have a surface there that has not been treated. The bolster is built of highly finished steel, it is true; but there is a skin formed on the metal by the lubricant which is the real lubricant.

When we come down to hand oiling, of course that is the largest individual problem in the textile mill. There are literally hundreds of thousands of bearings in a textile mill which have to be lubricated by hand. There are certain types of oils, and we can do as much in power-saving with the right type of oil for general-purpose lubrication as on the spindles. You use compound steam-cylinder oils in steam-cylinder bearings. Why? Because the compound gives you better lubrication, higher lubricity. Compound steam-cylinder oil happens to be a fatty oil. It gives you a strong surface boundary film, so the oil film functions when we have not the volume of oil to lift the jack from the shaft.

Of course, there is the other problem of grease lubrication. Grease plays a very, very important part in lubrication in industry. Ball bearings or any friction bearings are lubricated with grease. Why? To prevent friction. Use a high-grade grease for your ball bearings, and do not overlubricate them. It is perfectly possible to ruin or overheat your ball bearings by giving them too much grease. You can get too high temperature and distortion of your metals by using too much grease. A little shot with a gun once a month is perfectly ample, because the grease does not come out.

Remember to handle your problem in terms of the effectiveness of your oil wedge, and it becomes very simple.

Chairman: Thank you, Mr. Trewin.

Are there any questions on lubrication? If not now, perhaps some will come up later.

In the absence of J. R. Copland, Howard Barton, of Marshall Fields & Co., Spray, will lead the discussion on weaving.

Howard Barton, Supt., Marshall Fields & Co., Spray, N. C.: We have no questions outlined for discussion on our program today, so we should like to have someone bring up something at once and let's get going.

Member "A": I should like to ask a question on oil before we get on the weaving. What difference of viscosity for spindle oil would be recommended where a

man has a difference in temperature from the winter months to the summer months of from 20 to 30 degrees? I think of plenty of us have a difference of as much as 30 degrees in the room. I should like to have some of these oil men answer that question, with regard to the spinning. The gentleman that spoke raised a question in my mind.

G. W. Roberts, Sales Engineer, Socony-Vacuum Oil Company, Roanoke, Va.: I would say that there would be a variation of about 15 seconds. In the summer time, when your room temperatures are around 100, I would say your viscosity ought to be about 86; in the summer time, when the room temperature drops down say 20 or 30 degrees, I would say you should use about 65 or 70 second oil.

Mr. Barton: I happen to be in a mill making silk and rayon goods. To start this discussion off, I should like to ask for a little help. We have a lot of trouble with black stains getting on the goods, coming from the looms, and I want to find out about some way of cleaning up those looms—some fluid for cleaning them up. I know in a sheeting mill you do not do much of that kind of work, nor in a cotton mill. Is anyone here who is doing that kind of work cleaning the loom with any kind of fluid or scrubbing it? (No response heard.) There seem to be no rayon weavers here.

Cleaning Ball Bearings

Member "B": We have been in the habit of taking our ball bearings out and washing them in kerosene and then dipping them in oil to take the kerosene film off. According to what the gentleman said here this morning, it seems that we are doing the wrong thing. I should like to find out how some of the rest of the men in the mill are cleaning their ball bearings.

Chairman: Is Mr. Trewin here? Mr. Roberts?

Mr. Roberts: I think you will find it good practice, on your ball bearings, to take a light oil, like spindle oil, and submerge the bearing in the oil to loosen up the stuff on it; then take a brush and clean it out. You can do it very well in that way. I would not use kerosene anywhere on a bearing. I think, though, your idea of submerging the bearing in oil after using kerosene is very good. After cleaning them I would submerge them in an oil bath.

Weaving Problems

Member "C": I should like to know the best kind of grease for crank-shaft gear and the cam shaft, and how to apply it.

While I am on my feet I might ask another question, about the weaving. We have a lot of trouble from little slubs—loose pieces of filling, they appear to be, that get into our cloth. They seem to come from nowhere. I should like to know if anyone here can tell us where it comes from and how it gets there.

Getting back to the matter of oil again, we have shafting overhead, and we get a lot of spots on the cloth from it. The oil or grease seems to drop down through the loom and on the warp from the overhead shafting in spite of anything we can do there.

(Continued on Page 32)

GOOD BUSINESS NEWS

Ace Food Products Earnings Up 10% Net

Net profits for the Ace Food Products Company increased 10% during the past year, according to a statement released by that organization today.

Responsibility for the sales increase is directly attributable to the sale of accounts receivable. It has been estimated that this

A Going Business Uses Its Receivables To Finance a 500% Sales Increase

ONE year older—five times bigger in sales volume—and going strong with a 10% net profit . . . because early in 1937 the ACE FOOD PRODUCTS COMPANY* saw and answered an advertisement describing the Commercial Credit Company plan of "NON-NOTIFICATION" OPEN ACCOUNT FINANCING.

What they learned was encouraging. The plan they worked out subsequently with our assistance put them in a position to control distribution through new channels, at a higher rate of profit.

From operating one shift five days a week, they soon went to a six day week, working two shifts. Every month since, their sales volume has increased.

Within a year, their net worth was 50% greater, their outstanding receivables and sales volume

had been multiplied five times. And Profit? Last available quarterly figures showed a net 10% on sales.

Accounts receivable financing is not, as some inquiries have supposed, a last barrier against 77B. True, it has helped to put many a hard-pressed concern back on its feet. But when you analyze it, you see its greater value to going concerns.

It is the only form of commercial banking that provides cash as needed, without preliminary expense or delay, without maintenance of marginal credit balances, without surrender of credit and collection supervision, management or ownership.

If you would like "Information", write for our free booklet, "CAPITAL AT WORK". Address all inquiries to "Department TM".

*A fictitious name, but the facts and figures, taken from our records, can be certified.

COMMERCIAL CREDIT COMPANY

"Non-Notification" Open Account Financing

BALTIMORE

BOSTON

NEW YORK

CHICAGO

PORTLAND, ORE.

SAN FRANCISCO

CAPITAL AND SURPLUS MORE THAN \$65,000,000

Value of

END BREAKAGE TESTS

By T. L. Brockleman

On Roving Frames

END breakage tests on roving frames may be of considerable value, or they may not be worth the time expended in taking them, depending on the method employed both in the taking of the tests and in the filing and later use of them.

In making end breakage tests the first thing that should be understood is the fact that they are completely worthless for anything but comparison purposes. To say that a frame has an average of 4.5 ends down per frame hank means nothing unless there are previous figures for comparison or unless the test is being made for future comparison. End breakage is dependent upon so many factors that it is impossible to set up any standards that would apply to all mills, or even to the average mill. It is something that must apply to the particular plant, and



records must be compiled by the plant itself, over a period of time, if they are to be useful.

In order to make tests that are really useful a number of things other than just the number of breaks should be recorded. Most of these things are matters of record in the overseer's office, and should be entered on the test sheet before the test is made, or immediately after.

Include the staple and grade of cotton in process, the relative humidity and temperature of the room in the vicinity of the frames; draft and twist gears, front roller speed, type of top rollers, number of spindles, roving in creel for each frame covered in the test. Only a few minutes are required to assemble the information, and it may mean the difference in a useful test and a worthless one.

As a hypothetical case, assume that all of the above records have been made during a test on file in the overseer's office. Three months later another routine test is made, and it is found that on three frames the ends down have increased 20 per cent over three months back. By comparison with the records of the previous test it is found that all of the conditions are practically the same with the exception of the twist gear, which has three more teeth than when the first test was made. In changing the frames over for another hank roving and then back, the section man had put on the wrong twist gear and the twist was too low.

If the records had not been kept it would have been a matter of guess work to find the reason for the higher end breakage. Of course, the above case would probably have been solved quickly upon inspection by the second hand or overseer, and was used merely for simplicity to emphasize the importance of being able to eliminate a number of possible reasons for excessive end breakage by the comparison of records.

Actually taking the tests is comparatively simple, yet must be done with care. A form should be made up of a convenient size to fit on a clip board, with spaces for frame number, hank readings at start and finish of test, number of spindles, and classification of breaks as to cause if desired. Classifying breaks as to cause should not be attempted unless the checker is thoroughly familiar with roving frames. One point of classification, however, should be observed always; namely, the separation of ends pulled down by flying roving as a result of another end down, from the normal breakage. Frequently a single end down will break out a number of adjoining ends, and this should not be classified with the others.

When the test has been completed it should be summarized on a large master sheet to be kept in the office of the overseer. The date of the test and other records mentioned before should be included on this master sheet, with the frequency of end breaks for each frame and for each hank roving. The frequency may be stated as ends down per spindle hour or per frame hank—one will work as well as the other.

With this data on file the overseer is in a much better position to quickly locate any trouble that is causing excessive end breakage, by taking further tests and comparing results. He is also able to show whether changes in the processes prior to the roving process have been of value or not. It gives the overseer something to work with other than guesses and opinions. Naturally, judgment must be exercised in forming opinions from end breakage tests, and they should be used in conjunction with all other testing facilities at hand.

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ING CUT DOWN EFFICIENCY IN
YOUR PLANT—SAYS "SUNNY" PITTSBURGH**



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GIVE your employees the benefit of proper lighting! Turn every foot candle power of available light into bright, profitable illumination—with Pittsburgh's Glorified Light Systems. These long-lasting paints have been perfected under the expert guidance of leading authorities on light control. And, because of their quick-drying characteristics, any room in your plant can be repainted in a single day. There is a Pittsburgh Glorified Light System to fit every type of factory. Get all the interesting valuable facts *today!* Send for your free copy of "Glorified Light." Just clip coupon. Pittsburgh Plate Glass Company, Paint Division, Pittsburgh, Pennsylvania.

Cope, 1939 Pittsburgh Plate Glass Co.

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Pittsburgh Plate Glass Company
Paint Division, Dept. TB4, Pittsburgh, Pa.
Please send me free, your book,
"Glorified Light".

Name
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City State

How To Prevent Uneven Yarn

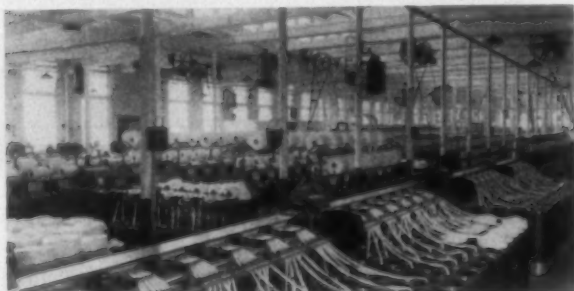
Following are further articles submitted in the contest on "How to Prevent Uneven Yarn." A total of 75 articles were submitted, and the winners will be announced as soon as the judges have had time to properly read the articles and judge their merit.

NUMBER EIGHT

Assuming that the spinning room has good smooth top rolls, properly weighted, lubricated, and set correct for length of staple being run, also parallel with steel fluted rolls, roving sets in good condition prevent strained roving.

Uneven yarn starts in the opening room. Assuming that the cotton for the mix is of the correct proportion and a good standard grade, poor blending of the reworkable waste in the mix causes uneven roving because there is no remedy to control waste once it is mixed. Therefore, standards should be made and closely watched to keep the waste down within reasonable proportions so that the quality of the yarn will not be affected. Also the manner in which the waste is mixed should be so regulated that the same proportion is being fed all the time.

Uneven picker laps cause uneven yarn. Uneven laps may be caused by the following: defective lap piecings, carelessness of picker tender letting laps run through or not splicing laps correctly, insufficient weight on feed rolls, cone belt running slack, dirty and choked cages, air current not properly adjusted, pickers not properly cleaned inside, laps not kept within fixed weights, and scales not weighing correctly. All of the above properly adhered to with fixed schedules of cleaning, inspecting,



and adjusting will give good running pickers and good running pickers are one of the first essentials of good quality yarn. Pickers should also be properly lubricated. Bearing on feed rolls or eveners cones sticking will cause uneven laps.

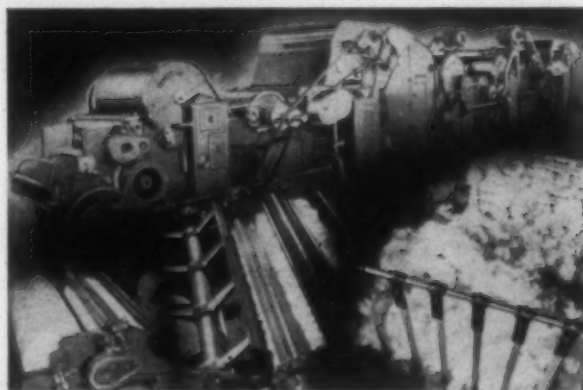
Cards should be level, properly set, and clothing sharp at all times. Cards should be ground regularly and lightly with good emery fillet on grinders.

In stripping cards with hand strippers, after the card has been stripped, the sliver should be allowed to run on the floor from three to five minutes or a sufficient length of time for sliver to assume its correct weight. A good plan is to stop about four cards at a time and strip the four before going back to the first to start putting the ends up. While one operative is putting up the ends on

the four cards and taking the waste up into a can, the other operative is stopping four more cards. This plan when actually put into practice gives very satisfactory results and eliminates all the light card sliver that would otherwise be spun into yarn.

Laps on cards should be run every other card full and every other one half full. With this method the card tender does not have to lay but half the laps at a time, thus eliminating all the different weight slivers that will result in creeling laps into cards at one time and also eliminating the possibility of laps running through cards before he can get laps layed.

All draft gears on cards should be examined regularly



to see that they are meshing properly together and not skipping. Skipping draft gears cause irregular feed of lap and irregularly fed cards cause uneven slivers and uneven slivers will cause uneven yarn.

The tension on lap between the lap roll and feed roll on cards should not be run too tight. If lap is run with too much tension it will be strained. Proper gearing can be put between feed roll and lap roll to relieve too much tension on lap.

The cans on cards should not run too full. Cans run too full cause strained slivers. A doffing signal can very easily be attached to lap roll by means of worm gearing and an electric horn arrangement. When the worm gear makes one complete revolution the points of contact meet and the horn blows.

The bore of the trumpet on cards should be of the correct size for weight of sliver being run. If not of the proper size, uneven sliver will result. Bonnet tongues should be taken off the cards and drilled out large enough for drawing trumpets to be used instead. In this manner a spare set of trumpets can be kept and made the proper size and all can be put in at the same time without a loss of time while waiting on bonnet tongues to be made the correct bore.

Feed rolls and calender rolls as well as the other parts of cards should be properly lubricated to assure smooth performance. Bonnet tongues should never be propped up in order to keep the sliver from running slack, as this condenses the sliver too much and the drawing frame

"WHAT'S THE SECRET, JIM?"

These figures show that your roll covering expense in the No. 4 mill is only half what it is in the other mills in our group."



"LITTLE EXPERIMENT I've been making. We've equipped all our frames with Armstrong's Cork Cots."

"OUR ROLL COVERING costs have been high as you know—too high to my way of thinking. So nine months ago, as an experiment, I began equipping the spinning and cardroom frames in our No. 4 mill with Armstrong's Cork Cots."

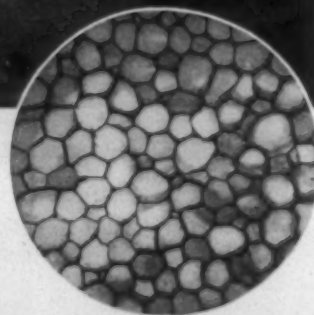
"RESULTS? You told me the answer yourself. It not only is reducing roll costs, but is giving us a stronger and more uniform product as well. We're getting better running work, too. Fewer top roll laps. Less end breakage. And these cots practically eliminate eyebrows."

"COSTS? Just glance at those figures again! The first cost of Armstrong's Cork Cots is no more than other roll coverings. But look at the savings they give us by lasting so much longer. Those cots will be good for a couple of years more because

they can be rebuffed three or four times for about half a cent a roll."

"NO QUESTION about it, Jim. Your experiment proves to me that a complete change-over to cork will cut our roll covering cost by 50% or more. After what you've shown me, there's no reason to hesitate—I'm going to suggest we change all our mills to Armstrong's Cork right now."

RIGHT NOW is a good time to find out how your mill can benefit by a change-over to the modern roll covering—Armstrong's Seamless Cork Cots. Let an Armstrong representative show you production figures of mills spinning your range of numbers on cork. Or write today to Armstrong Cork Company, Industrial Division, Textile Products Section, 921 Arch Street, Lancaster, Pennsylvania.



WHY CORK COTS HAVE LONGER LIFE

The microscope shows that cork consists of millions of tiny cells of trapped air. Under pressure, this air contracts, but the cell walls do not change. When pressure is released, the cork "comes back" quickly to its original shape. That's why cork cots last longer, give you a truer, more uniform drafting surface over a longer period of time.

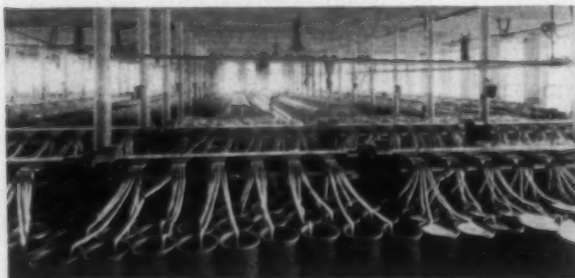
ARMSTRONG'S Extra Cushion SEAMLESS CORK COTS

CORK PRODUCTS SINCE 1860

rolls cannot draft it out correctly. Cards running slack can be corrected by having an adjusting screw put under bonnet tongue with a jamb nut on it. The card grinder or man in charge of cards can regulate the proper tension on the ends.

There is a chance for more uneven work to be made at the drawing frames than any other place in the mill and in many cases more uneven work comes from the drawing than any place else. The draw frame operatives should use the greatest care possible not to allow singlings and doublings to be made on their machine. If the spoons are not working correctly and a singling does go through, then the tender should go around to the front after putting sliver into the machine and take singling out of the can. Cotton accumulating under spoons keeps them from functioning properly. Spoons should be cleaned under regularly and the second hand should check to see if spoons are working properly.

A system should be adopted at the drawing in creeling. Half the cans up next to the frame should be half full when the other half is put in full. Three half full slivers should go into frame with three slivers from full cans. The slivers that are creeled in should be put up to the back roll and run through frame and pieced together in front cans, thus eliminating the chance of unevenness. The frame should be cleaned while stopped for creeling and not bothered until it creels again.



Lapped rolls or small accumulation in flutes cause rolls to jump, resulting in unevenness in slivers. Drawing rolls should be inspected twice daily to be sure laps and foreign substances are kept out of flutes.

Bearings on top rolls should be properly lubricated in order to run freely. If sluggish in operation, unevenness of product will result.

Drawing rolls should be set correctly for length of staple being run.

Proper tension on ends should be kept at all times. Ends should not be allowed to run too slack or too tight but with just a small amount of sag.

Trumpets should be set the proper distance from calender roll to keep the sliver from being strained as it reaches the calender roll. Trumpets should be of the proper size for sliver run. A bugle-shaped trumpet should be preferred rather than a straight hole trumpet to prevent the strain of the sliver in passing through the trumpet.

Full can target stop motions should be used to regulate size of doff in order that drawing cans will not run too full and strain the sliver.

Proper tensions on roving frames should be kept at all times. Frame hands should not try to regulate their tensions when the ends are too slack, as they are liable to tighten them too much and strain the roving.

Of course, there are many other ways for preventing uneven yarn, but to me the above seem by far the most important.
"R. L. M."

NUMBER NINE

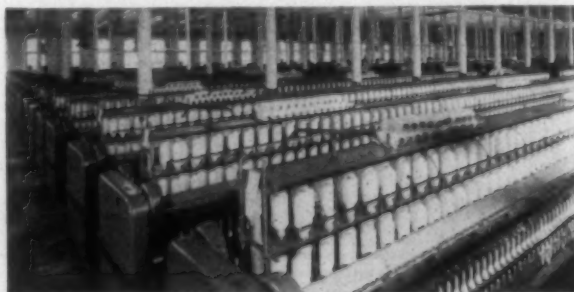
We are constantly watching and checking the following in an effort to prevent uneven yarn:

Opening and Picking

Choose a cotton with suitable staple and grade for the counts to be spun. Open as many bales as possible as far ahead as practicable, and when laid out for use place them so as to get a good blend of all the grades. Keep the draft right on the pickers. Do as much of the cleaning as possible with air force against grids. Set beaters to feed rolls and grid bars and the bars themselves right. Keep eveners motions in good repair. Make the lap weigh right considering the moisture content. Make a periodical check on the laps yard by yard. Start the laps on the stick right and handle them with care in the picker room and in transportation.

Cards

Keep the draft and pounds carded per hour within reasonable bounds. Keep lickerins, clothing and flats in



good condition and ground properly. Set the cards as close as possible considering pounds carded, condition of clothing and foundation. Strip often enough to keep the cards from becoming too loaded. Strip alternate cards and don't put the end back up too soon. The trumpets should be the right diameter for the weight of the stock. Teach card tenders the correct way to lay the laps to avoid heavy and light places. Keep the cards clean.

Drawing

Teach drawing frame tenders not to make singlings and doublings and bad splicings and to recognize extremely heavy or light sliver when they see it. Keep the frames clean and in cleaning take care that none of the lint falls in the cans. Keep stop motions working properly. Have correct size trumpets. Keep good collars on top steel rolls. Set rolls right. Avoid excessive changing of the draft gears, which is likely to occur when running two or three shifts with several persons doing the weighing. *The tension on drawing must be kept right to produce even work.*

Roving

Teach frame hands not to make singlings and doublings and bad splicings and to wrap the flyer presser fin-

(Continued on page 27)

How To Prevent Uneven Yarn

(Continued from Preceding Page)

ger properly at all times, and not to run a spindle with a bad bobbin gear on it. Make sure the tension, lay and twist are kept right and the cone belts aren't slipping. Do not use bad bobbins and bobbins of the wrong diameter. Make sure the roving is not being stretched in the creel. Keep the flyers balanced.

Spinning

Teach the spinners how to put up an end properly and not to leave too long a tail when creeling. To keep rollers and clearers clean, and to watch roving for singlings and doublings and other defects.

Consistently check for bands or tapes slipping, worn whorls, bad bobbins or quills and chocked, crooked and vibrating spindles. Keep correct traveler, ring, spindle speed, front roll speed and speed of traverse for counts being spun. Be sure the roving is not being stretched in the creel. Use the proper size and quality band or tape for the whorl. Keep guide wires set properly and ring rails level and moving up and down as smoothly as possible. Check for worn or improperly adjusted saddles and stirrups and sharp edges on trumpets.

General

Make sure all gears are meshed properly. Keep draft divided properly between the several rolls on all processes. Keep steel rolls clean and in good condition.

It is essential that top rolls be kept in good condition, free of oil and have a good cushion and good leather. The bosses should be the same diameter as near as possible. Keep top rolls weighted correctly and the stroke of the roving traverse as long as possible without causing the roving to run out the sides of the rolls.

Keep spindles plumb on all processes. Set rolls properly for stock being used. Do not draft too short or too long.

Keep an accurate record of waste being made at the various processes. The amount of waste being made is a good indicator of how the work is running.

Keep all machines lined and leveled properly.

Proper humidity is as essential as the cotton. It is well to have plenty of heads and automatic controls. The second hands should be responsible for keeping the windows closed when necessary.

The existing temperature and relative humidity should be considered before any draft gears are changed.

Lubrication: Much could be said on this subject but I think it will suffice to say here that most mills have a capable engineer to determine their requirements and it is then up to the overseers to see that his recommendations are carried out. Most mill men realize the importance of correct lubrication.

Frequent end down tests are necessary in the carding and spinning to ascertain whether the above items are being carried out as planned, and to determine the actual results being attained with *all* the factors considered.

"MAJOR."

Draper To Furnish Looms With K-A Electric Warp Stops

Arrangements have been completed for Draper Corporation to furnish looms equipped with K-A Electrical Warp Stops to those who wish them so equipped, according to an announcement from the R. I. Warp Stop Equipment Company, Pawtucket, R. I.

Piedmont Section A. A. T. C. C. To Meet in Greensboro

The Piedmont Section of the American Association of Textile Chemists and Colorists will hold the spring meeting at the King Cotton Hotel, Greensboro, N. C., on Saturday, April 29th, according to an announcement by J. W. Ivey, secretary of the Section.

The Summer Outing will be held at Myrtle Beach, S. C.

Employment and Payrolls Rise in N. C. Cotton Mills

Statistics recently issued by the North Carolina Department of Labor for January-February show that the cotton textile industry of North Carolina increased the number on its pay rolls to a total of 61,715 persons in February, 1.3 per cent more than in January.

Judson House Sale is Begun

Greenville, S. C.—Alester G. Furman, Jr., who is handling the sale of 56 houses in the Judson number two village, has said that the dwellings were first being offered to Judson operatives, but that those unsold would be available to the public.

He said that press reports of the disposal of the houses on an easy payment plan might have created the impression that sale of the residences would be restricted to Judson workers.

Mr. Furman said that those who had worked at Judson number two plant (and who were transferred to the number one plant when the former buildings was leased to a box manufacturing company) would have first choice.

Prices are ranging from \$900 to \$1,300, with 10 per cent down payments required and the remainder at the rate of one per cent per month for 139 months.

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A COMPLETE LINE OF
INDUSTRIAL PETROLEUM PRODUCTS

PURE THREE POINT LUBRICATION



OIL CO.

CHICAGO U.S.A.

A. C. M. A. Convention April 13-14-15

The Forty-third Annual Convention of the American Cotton Manufacturers' Association, which meets in New Orleans April 13th, 14th and 15th, at the Roosevelt Hotel, gives promise of being one of the most interesting and best attended conventions of this group held in recent years, in the opinion of Association officials.

The general theme of the convention is "Looking Forward for the Next Ten Years in the Cotton Textile Industry," and four outstanding mill executives will speak on various phases of this topic on Friday morning, April 14th, at 10 o'clock in convention hall at the hotel, the opening session of the convention proper.

Robert R. West, president of the Riverside & Dan River Cotton Mills, Danville, Va., and second vice-president of the Association, will discuss the subject of statistics during the next ten years, whether they will be important, and if so how and why.

B. B. Gossett, past president of the Association, and president of the Chadwick-Hoskins group of mills and the Gossett Mills, will discuss how production control will function in the operation of the textile industry during the next decade. Mr. Gossett has given more attention to the irregularities of operation than perhaps any other man in the industry.

W. N. Banks, past president of the Georgia Cotton Manufacturers' Association and president of the Grantville Mills, Grantville, Ga., will discuss the problems of promotion and distribution and how they may be effectively solved.

Fuller E. Callaway, Jr., president of the Callaway Mills, LaGrange, Ga., and a member of the Association's board of directors, will discuss the value of research to the industry, outlining what must be done for mills to maintain their industrial position in competition with other fibers. Callaway Mills is a pioneer in the field of research.

The closing address of the Friday morning session will be that of John H. Cheatham, president of the Association, who is a member of Industry Committee No. 1 of the Fair Labor Standards Act.

The Association's board of government will conduct its regular pre-convention session on Thursday morning, April 13th, at 10 o'clock, closing with a luncheon at 1 o'clock. At this session all reports of special and standing committees, which have been appointed this year, will be read and discussed.

Thursday evening, in the convention hall, from 9 to 10 o'clock, an informal executive session will be held, for which no formal or set speeches will be prepared. There has been a demand for several years for a session at which any member may have the privilege of the floor to express himself on any matter concerning the textile industry, it is explained. Only bona fide textile mill men will be present and no record made of the discussion. The resolutions committee will be present in order to decide whether or not out of the discussions any resolution of importance should be developed to be presented at the business session.

On Friday, there will be no afternoon session. The banquet will be held that evening at 8 o'clock, with Mr.

Cheatham as toastmaster. R. W. Leche, Governor of Louisiana, will be guest speaker at the banquet.

At the business session Saturday morning, April 15th, there will be two addresses in addition to the various reports and other regular convention activities. Robert Strickland, president of the Trust Co. of Georgia, Atlanta, one of the South's outstanding economists, will review the outlook of the economic situation for the next ten years. He will be followed by Dr. C. T. Murchison, president of the Cotton-Textile Institute, who will review the raw cotton situation, outlining the prospective or proposed plans for solving this enigma.

Afterward will come the election of the officers, and presentation of the President's medal.

As an entertainment feature Charles Yates, amateur British champion, will conduct a golf tournament Thursday and Friday afternoons. Wives of the mill men have been invited by the Myles Salt Co., Ltd., to attend a luncheon at the Patio Royal Friday. Afterwards there will be a tour through the Vieux Carre, New Orleans' Old French Quarter.

Census To Be Taken On Cotton Spindles Working Rayon Staple

Washington, D. C.—In response to pleas from cotton and rayon manufacturers, the Census Bureau will undertake a survey for one month only to determine the number of cotton spindles that are operating on rayon and rayon and cotton mixed. The survey, according to officials, will be made during May and will cover April operations, under present plans details of the survey will be made public about the middle of May, along with the regular monthly cotton spindle report for April.

For several months manufacturers of both cotton and rayon goods have been after the Census Bureau to compile such statistics. If conditions warrant this extra work it will be made a monthly feature.

Trust Company of Georgia Enters Commercial Factoring Field

The announcement by the Trust Company of Georgia, Atlanta, of its action in establishing a commercial Factoring Division makes, it is believed, the first time this very important financial facility has been made available to the industries of this section by a Southern institution.

George W. Henderson, for many years associated with Amory Browne & Co. as credit manager, partner and treasurer, will direct the new department. Mr. Henderson has had wide experience in general credit matters and is thoroughly familiar with the various phases of selling, manufacturing, promotional and other mill angles of the textile business, it was said. He has long been actively identified in New York with National Credit Associations. He organized and was one of the early presidents of the Downtown Textile Credit Group, which embodies all of the leading knitting, piece goods commission houses and converters. He has served on the general panel of the American Arbitration Society and the Cotton Textile Institute on textile controversies submitted to arbitration, and on committees of the Association of Cotton Textile Manufacturers.

Augmenting the new division will be a well trained staff, experienced in this method of finance.

The entrance of the Trust Company of Georgia into the factoring field makes immediately accessible to Southern textile mills, as well as other industries, this form of financing which has in the past been confined to sections of the country other than the South, and it is believed that the introduction of factoring into this part of the country will command the attention of business leaders throughout this section.

Offices of the new division are located at 533 Trust Company of Georgia Building.

Millmen of S. C. Convene June 1-2

The Cotton Manufacturers of South Carolina have completed plans for the association's June convention, William P. Jacobs, secretary announced.

The convention will be held at High Hampton Inn, Cashiers, N. C., on June 1-2. The program will include two business meetings, one each day, and a banquet the night of June 2. Further details will be published later.

Another Mill May Close

(From Greenville, S. C., Newspaper)

Another South Carolina cotton mill, village and all, may fold up in the near future. Obsolete machinery and other factors, resulting in failure to achieve profits, is the basic trouble.

No decision has been reached, but officials are turning the question over in their minds as to whether it is better to run on without ability to make money or to shut down and save money. Some decision may be reached in the early future, when, of course, the course to be taken will be published in the press.

No names of the mill are given, you note, and none will be divulged. Sufficient to say, however, that it is in the Piedmont section and in years past has been the means of earning bread for many workers—and profits for many stockholders.

Textile Grads Are Promoted

Raleigh, N. C.—Dean Thomas Nelson, of the Textile School at N. C. State College, announced recently he had received notice of the promotion of eight textile graduates to responsible positions. The young men are listed here with the posts to which they have been elevated.

P. W. McCollum, Class of 1934, assistant superintendent of the Cannon Mills Plant No. 6, Concord. J. S. Smitherman, Class of 1935, superintendent of the A. Leon Capel Rug Mills, Troy. J. E. Reeves, Class of 1935, superintendent of Mills Plant No. 2, Woodruff, S. C.

Alex Gee, Class of 1936, assistant superintendent of Spartan Mills, Spartanburg, S. C. James Dolphin, Class of 1937, superintendent of Ontario Mills of Canadian Cottons, Ltd., Hamilton, Ontario, Canada. R. W. Ounn, Class of 1937, overseer of spinning, Rocky Mount Mills, Rocky, Mount. W. L. Jones, Class of 1938, in charge of research department, Rocky Mount Mills, Rocky Mount. C. R. Little, Class of 1931, superintendent of D. E. Rhyne Mills, Inc., Lincolnton and Southside.

IT'S THE EDGE

—That Prevents Fly Waste
and Split Ends

The swirling of the end in passing through the traveler produces smooth even yarn.

This in turn reduces the fly waste to a minimum in the Spinning and Twisting of Cotton, Wool, Worsted, and Asbestos, also reduces the number of split ends in the throwing of Real and Artificial Silks.

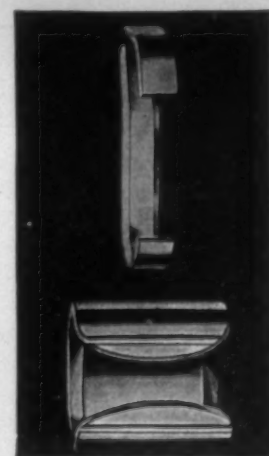
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A Traveler for Every Fibre

Personal News

Dr. Werner Schlie has resigned as sales manager of American Bemberg Corporation.

Ray Butler, of the Spray Cotton Mills, Spray, N. C., had his tonsils removed on March 21st.

G. H. Geitner, president of Ivey Weavers, Inc., Hickory, N. C., has been re-elected one of the vice-presidents of the First National Bank of Hickory.

Carl V. Cline, prominent textile executive of Hickory, N. C., has been elected president of the new Catawba Valley Broadcasting Company, Inc.

Senator Ellison D. Smith will deliver the principal address at the annual convention of the Atlantic Cotton Association, to be held in Greenville, S. C., April 14th.

M. J. Peterzell is manager of the Jackson County Mills, Pasagoula, Miss., a branch of the Onyx Knitting Mills, Philadelphia, Pa.

Alfred H. Randall has been made general superintendent of the Alabama Mills, Inc., after having served as assistant general superintendent for the past eight years.

F. W. Beville, of Sutherland, Va., is the president of the newly organized B. G. & D. Hosiery Company, Inc., of Petersburg, Va.

Earl J. Wentz, of Schoolfield, Va., has been granted a patent on a shuttle feeler for looms which will stop the loom if the shuttle is not properly boxed.

Norman Griffith has joined the sales staff of the Old Dominion Box Company. He will travel the Southern States.

Ben Pons, superintendent of the Pilot Full-Fashioned Mills, Inc., Valdese, N. C., has been made a member of the city council board.

Ben V. May, executive of the May Hosiery Mills, Inc., of Burlington, N. C., has purchased the property known as the Forbis Building, Greensboro, N. C.

James W. Bell is now general manager of the Hartwell Manufacturing Company, Hartwell, Ga. The company manufactures pants, jackets and riding breeches.

J. D. Cassada has resigned his position as assistant manager of Plant No. 2 of the Roanoke Mills Company, Roanoke Rapids, N. C.

Thomas F. Brastow, laboratory assistant at the Lewistown, Pa. plant of the American Viscose Corporation, has been appointed chief chemist at the new plant of the company at Front Royal, Va.

George M. Wright, president of the Republic Cotton Mills of Great Falls, S. C., is recuperating from a recent operation at Columbia (S. C.) Hospital.

William N. Randle, superintendent of the designing department of the Anchor Duck Mills, Rome, Ga., was married recently to Miss Cobbie May Dean.

George S. Lux, formerly assistant foreman of the viscose department at the plant at Lewistown, Pa., has been named foreman of the same department at the Front Royal, Va. plant of the company.

Nestor Groteleuschen, of Magnet Mills, Clinton, Tenn., was re-elected chairman of the South-Central Section of the American Association of Textile Chemists and Colorists at their recent meeting.

L. T. Murray, secretary and general manager of the Texas Cotton Association, is one of the two candidates for city commissioner drafted by the Civic Association of Waco, Tex.

Fletcher Kibler, of United Hosiery Mills, Chattanooga, Tenn., was elected vice-president of the South-Central Section of the American Association of Textile Chemists and Colorists at their recent meeting.

Herman J. Nova has resigned as manager of the Shambow Shuttle Division of American Paper Tube Company of Woonsocket, R. I. Mr. Nova has not announced his future plans.

E. S. Cunningham has been appointed general manager of the Dallas Cotton Mills Company, Dallas, Tex. Mr. Cunningham has been identified with the textile trade for many years.

G. C. Rambow, formerly overseer of spinning at Marlboro Cotton Mills, No. 5, Bennettsville, S. C., is now second hand in the card room, 1st shift, at Sibley plant of Sibley Enterprise Manufacturing Company, Augusta, Ga.

W. R. Crabtree, assistant manager of Firestone Cotton Mill, giant Gastonia (N. C.) tire fabric plant, will be a candidate for the Gastonia City Council in the city primary April 24th.

J. M. Pike, Auburn graduate in textile chemistry, has been transferred from the New York Laboratories of Ciba Company to their Charlotte, N. C. Laboratory. Mr. Pike was president of the Auburn chapter of Phi Psi, honorary textile fraternity when at school.

Christopher W. Buehl, assistant foreman of the spinning department of the American Viscose Corporation plant at Lewistown, Pa., has been promoted to the position of foreman of spinning at the company's Front Royal, Va. plant.

Penn R. Lindsay Talks To Clemson Students

Clemson, S. C.—Penn R. Lindsay of the R. & H. Chemicals Department, E. I. du Pont de Nemours & Co., Charlotte, N. C., recently visited Clemson Textile School to talk to the seniors majoring in textile engineering and the seniors majoring in textile chemistry and dyeing. The subject of his discussion was "New Developments in Peroxide Bleaching."

OBITUARY**ALLEN J. STRICKLAND**

Valdosta, Ga.—Allen J. Strickland, Sr., 76, president of the Strickland Cotton Mills, of Remerton, near here, died of a heart attack on February 21st while returning from a deep sea fishing trip off Miami, Fla.

J. B. KILGORE

Woodruff, S. C.—J. Belton Kilgore, one of the organizers of the Woodruff Cotton Mill, first industrial plant here, and long identified with the civic, social and religious life of Woodruff, died February 21st, after a 10-day illness.

Mr. Kilgore served in a high capacity at the cotton mills here until he retired a few years ago and also was president of the Bank of Woodruff several years.

ROBERT H. STEWART

Cedartown, Ga.—Robert H. Stewart, 48, superintendent of the Goodyear Clearwater Mills No. 1 here, died February 9th.

Mr. Stewart came to Cedartown in 1929 to become superintendent of the Cedartown Goodyear Mill and had been active until a few months ago. Prior to coming to Cedartown he had been assistant superintendent of the Goodyear Mill at New Bedford, Mass., and before that was connected with several leading Eastern textile mills.

He was enthusiastically interested in civic undertakings, in church and club life and was a leader in all.

JOHN F. MCGINNISS

Whitinsville, Mass.—John F. McGinniss, 54, textile engineer and salesman for the Whitin Machine Works, manufacturers of equipment for card and spinning rooms, died on March 2nd after a long illness.

Mr. McGinniss had a wide acquaintance throughout the textile industry of this country and Canada.

BEN D. GADDY

Durham, N. C.—Benjamin Dixon Gaddy, 48, superintendent of the Golden Belt Manufacturing Company, died March 13th at Duke Hospital.

Educated in the Albemarle schools and at the University of North Carolina, Gaddy entered the hosiery business at Newton and later went to Hickory. From Hickory, in 1919, he moved to Durham.

Mr. Gaddy was active in church and fraternal circles. He is survived by his widow, five daughters, and one son. A brother, C. W. Gaddy, of Albemarle, and two sisters, Mrs. W. R. Burrage, of Concord, and Mrs. F. L. Moore, of Roanoke, Va., also survive.

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Suitable for Blends with Rayon or Cotton

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Greenville, South Carolina

Booths 205 and 206"

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Phone 2264

C. A. Higgins Elected Hercules President

Wilmington, Del.—Charles A. Higgins was elected president of Hercules Powder Company at the recent organization meeting of the Board of Directors. The new president has been with Hercules since 1915 and has been vice chairman of the executive committee since 1933. He succeeds R. H. Dunham, who continues with the company as chairman of the Board of Directors, the position he has held jointly with the presidency since the organization of Hercules Powder Company in 1912, a period of twenty-six years. Mr. Dunham also will serve as chairman of the Finance Committee.

Five Mill Operatives Drown

Aiken, S. C.—Five men drowned March 25th when their automobile plunged over a 20-foot embankment into a 30-foot canal at Bath, S. C.

They were identified as Erskine Rhodes, 23, an employee of the Bath textile mill; Wilson Boyd, 23, of Bath; Reville Johnson, 21, Ernest Barkley, 22, and Lewis Widener, 21, all employed at the Clearwater Cotton Mill near Bath.

Charles Cunningham and his son noticed automobile wheels sticking out of the water about 6 a. m. They summoned help, and the bodies were recovered in about an hour.

Colored Yarn Spinners to Form Group

Organization of the spinners of colored carded yarns as a unit within the Carded Yarn Group with W. N. Banks of Grantville, Ga., as chairman was announced recently by E. O. Fitzsimons of Charlotte, N. C., the group's secretary.

He said the new unit "will immediately take over the correction of their own problems."

The formation of the section resulted from the conference of Carded Yarn Group members at Charlotte a short time ago.


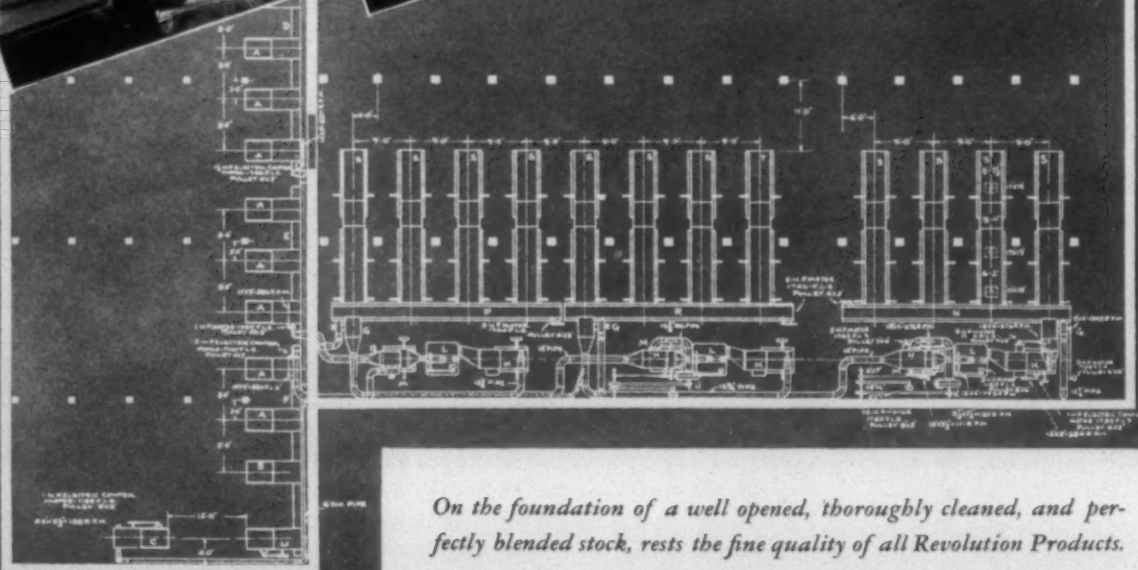
In a communication to the spinners of colored carded yarns in the Southeastern States, Mr. Fitzsimons pointed out that while these spinners have been members of the group, "those of you who manufacture colored yarns exclusively have not heretofore received the brand of service to which you are entitled. This condition has existed because your problems are separate and distinct from those of the spinners of natural yarns. Thus any broad treatment of the difficulties confronting carded yarn manufacturers and group activities related thereto have not often touched upon your own peculiar problems."

Mr. Fitzsimons reported that a number of spinners of colored carded yarns held an informal meeting at the conclusion of the group's meeting. "We wish to advise you that those present voted unanimously to revive the colored yarn section of our group into an active unit and immediately take over the correction of their own problems," said Mr. Fitzsimons in his letter to the spinners.

When the spinners have had time to reply to this letter, said Mr. Fitzsimons, a meeting of the colored carded yarn section will be called by Mr. Banks. The secretary reported that his list included the names of 39 spinning companies eligible for membership in the section.

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Has the Law Been Violated?

Regimenting certain fundamental activities of the nation's industries is a much more serious and involved undertaking than the average citizen possibly realize.

The administration of policies and purposes of the Fair Labor Standards Act of 1938 superficially seems simple. Simple in the fact that it requires that a floor shall be put under wages and a ceiling over hours. The problem becomes complex, however, when these two mandates must be executed without giving a competitive advantage to any group or substantially curtailing employment. This fact is further complicated by an attempt to set up national minimum wage rates and national maximum hours.

The administration of this law becomes further involved when individual national minimums are attempted for the various industries. Because, here again, no industry is an entity within itself. It bears certain competitive relationships either directly or indirectly to many other industries and it is practically impossible to establish minimum wage rates for the individual industries that can and will bear a proportionate competitive relativity to the competing industries.

The imports and significances of human economic ability required to set up such standards is appalling. The fair minded, the intelligent

minded, appreciate the impossibility of applying the law with justice and impartiality.

The application of the principles, outlined in this Act, to an individual industry presents the same complex problems of impossibility and insolubility. The cotton textile industry is only one of many branches of an industry which has been largely classified as the textile industry, and even the cotton textile industry is not a homogeneous industry of one plan and pattern, of one type of product which yields itself throughout its length and breadth to a common treatment. The cotton textile industry is a composite of perhaps forty or fifty different types of cotton textile industries performing various and sundry operations in the conduct and consumption of what may be termed the cotton textile industry of the nation.

These industries require varying amounts of skill, various types of workers. They are situated in various economic areas, some in extremely high wage areas, where living conditions and all attendant costs are very high. Others are located in areas of low wages, where living conditions and other attendant costs are very low. There are differences in wage rates North and South. There are differences within the Northern and within the Southern areas. There are areas of fine goods and areas of coarse goods. There are areas of highly congested urban centers. There are areas of sparse rural situations.

All of these conditions and many more indicate the divergent and complex economic areas that exist throughout this nation. Particularly in the South, which is a great agricultural area, dependent upon cotton, tobacco, lumbering and textiles, we find wage rates, as compared with other areas, lower. The Government in establishing lower WPA rates in the South, recognized that there was a difference and that action contrasts with the present establishment of the same rates for textile workers, both North and South. However, in our own Southern area, the wage rate in our varying economic structure bears a definite harmonic ratio.

Our South is just developing its industrial life. It is an area filled with latent possibilities and while it has made rapid progress, it has not yet attained a stride comparable to the old industrial areas. It is a well known economic fact that highly developed industrial areas reflect higher wage rates than agricultural areas, or the less highly developed industrial areas.

The amount of money available for developing new industries, for remodeling old industries, the confidence which an area has in its government, and many other factors determine the daring with which money and men manifest

themselves. The Southern area, and particularly the Southern cotton textile industry, is handicapped by a seriously discriminating freight rate differential in the marketing of its goods. It is handicapped by the fact that it must keep its industrial wage rate somewhat in harmony with its agricultural wage rate. It is further handicapped by the fact that it has great groups of unskilled workers, particularly among its tenants and negroes. A minimum wage established by law lifting the great body of these unskilled and low paid workers into a bracket out of harmony with other prevailing wages, will upset the economic system of the South.

The Majority Report of Industry Committee No. 1, whose duty it was to determine a basic minimum wage for the cotton textile industry, has seemingly disregarded all of the above implications referred to in this editorial. The $32\frac{1}{2}$ c minimum wage rate of the South will, if it compels a wage of $32\frac{1}{2}$ c for unskilled workers such as scrubbers and yard hands and if mills maintain the present differential for skilled workers, materially increase the wage structure, with a probable general average of between 15 to 30%. The rate applies to all workers and will force textile plants to pay unskilled workers far more than others, in the same community, receive for comparative similar labors. This means a drying up in the South of opportunity for textile employment of unskilled persons.

The principles of N.R.A. set in motion policies which considerably reduced spindles in place. This has meant the loss of employment for many textile workers. If this majority report recommendation of Industry Committee No. 1 is put into operation, and is determined to be legal, then it is our honest opinion that more spindles will go out of operation and this will mean an employment opportunity will be lost for many thousand textile workers. It will mean that the weak and poorly financed mills will have to be closed and that the stronger mills will absorb whatever business they had that is worth saving.

Now let us go back and make the statement contained in the law, which says that the committee was appointed for the purpose of establishing the highest minimum wage which can be paid by various industries, not in excess of 40c per hour, without giving a competitive advantage to any group and without substantially curtailing employment.

If our forecast with reference to the $32\frac{1}{2}$ c wage rate is correct, i.e., that it will mean the ultimate displacement of several million spindles and will destroy the employment opportunity of thousands of textile workers and will give a competitive advantage to the stronger and better financed mills, does it seem that the Majority

Report of Committee No. 1 has properly interpreted the law or intelligently reflected the testimony presented?

W. P. A. Distribution

Since the beginning, the WPA has spent on projects in the 13 Southern States \$524,000,000.

In New York State alone it has spent a total of \$650,000,000.

The population of the 13 Southern States is 36,459,000 and the population of New York State is 12,959,000.

\$524,000,00 WPA for relief of 36,459,000 people.

\$650,000,000 WPA for relief of 12,959,000 people.

\$14.50 per person for relief in the South.

\$50.00 per person for relief in New York.

In the South, the section where incomes are so low that President Roosevelt's commission designated it as the nation's Economic Problem No. 1, the people were given WPA expenditures for the improvement of business to the extent of \$14.50 per capita.

In New York State, which was not designated as an economic problem of any kind, the WPA relief projects amounted to \$50.00 per capita.

They seem to feel that while they gave New York \$50.00 per capita, \$14.50 per person was enough for the South.

Was it any coincidence that they knew that the South was going to vote the Democratic ticket, no matter how it was treated and that the result of elections in New York are always much in doubt?

New Yorkers and Southerners all live in the United States but you get \$50 in New York as against \$14.50 in the South.

The Wages and Hours Law administration seeks to force Southern industries to pay exactly the same wages as similar industries in the North but WPA not only gives almost four times as much per capita for Northern relief, but Northern WPA workers get a much higher per hour wage.

Southern Textile Exposition

We are looking forward to seeing many of our friends at the Southern Textile Exposition next week. We will appreciate calls at Booth No. 204, which is located upon the second floor of the main building and is exactly the same space we occupied two years ago.

Mill News

NEW BRAUNFELS, TEX.—The Lone Star Wool and Mohair Mill, which is being organized at this place, will confine its operations to wool scouring and will not do any manufacturing.

KINGSTON, GA.—The Kingston Chenille Company, recently organized by Malone & Lindsay, of Sugar Valley, Ga., has purchased two connecting brick buildings from James D. Rollins, and is converting them into a modern bedsread factory with a capacity of 200 machines.

SHANNON, GA.—Southern Brighton Mills, in its initial report, shows a net profit of \$5,748, after all charges including depreciation, interest and taxes, for the year ended December 31, 1938.

Net sales for the year just ended totaled \$2,253,668.

At the end of last year current assets amounted to \$900,190 and current liabilities were \$576,957.

BUENA VISTA, VA.—The Buena Vista unit of National Fabrics Corporation, with 96 looms, which has been running day and night for the past three years in the production of silk chiffons will close soon when present work is run out. The closing is due to the high price of raw silk.

At the New York office it was stated it was found inadvisable to continue production.

HARTWELL, GA.—William H. Jennings, head of the Barrow Manufacturing Company, Winder, who recently purchased the plant of the Nancy Hart Manufacturing Company, has renamed it the Hartwell Manufacturing Company. The new plant has begun operations in the Gallant-Belk Building. One hundred workers are expected to be employed. The company makes pants, jackets, and riding breeches.

NEWRY, S. C.—The Courtney Manufacturing Plant at Newry closed March 25th after the last shift. Notices were posted announcing the suspension of operation for an indefinite period. The Cannon management, the owners of the Newry plant, gave no reason for the closing. The official notices that were posted informed the workers that they were at liberty to seek employment elsewhere and this seems to indicate that the owners do not expect to open the plant any time soon.

GREENVILLE, S. C.—A. B. Sibley, treasurer, announces installation of 350 new 44-inch XK Model Draper looms for weaving of rayon fabrics and 9,600 spindles of rayon twistors have been completed at Judson Mills No. 1 plant.

The looms were installed as replacements and the spindles constitute an addition to the plant machinery. All of the new machinery is operating.

The company recently closed its No. 2 plant, but all workers there have been absorbed by the No. 1 plant, officials said.

GREENSBORO, N. C.—Burlington Mills Corporation, and subsidiaries, weavers of rayon fabrics, reported net earnings for 1938 of \$1,239,820, or \$2.27 a common share, compared with \$715,595, or \$1.31 a share in 1937. Most of the company's 20 plants are in North Carolina.

BURLINGTON, N. C.—The Monarch Hosiery Mills, Inc., has received a charter to make and sell hosiery and other knit goods, under authorized capital of \$100,000, with \$900 of the stock subscribed by J. W. Keziah, Margaret E. Fogleman and Coy G. McCuiston, all of Alamance County.

MOORESVILLE, N. C.—The Mooresville Cotton Mills operated at a loss of \$83,000 during 1938, it was reported to the stockholders' annual meeting. The amount marked off for depreciation was \$130,000. The firm showed a better cash position by \$46,000.

All board members were re-elected with the exception of Donald Comer, who resigned. His place was filled by Ernest Bohannon, Jr., secretary and treasurer of the corporation.

ROANOKE RAPIDS, N. C.—The Simmons Company, which controls the mills at this place, makes the following comment in its annual report for year ending December 31, 1938.

"In the textile division a program of modernization is well under way. This has involved an expenditure of approximately \$700,000 over the last two years. An additional expenditure this year of about \$450,000 is anticipated to complete the work."

ENGLEWOOD, TENN.—The Eureka Cotton Mills, which were recently bought by C. L. Upchurch & Sons, of Athens, Ga., are scheduled to be put back into operations soon. The property was bought from the Reconstruction Finance Corp.

It is stated here that much of the old equipment of the mills have been removed, and in preparation for the re-opening of a portion of the cloth department of the mill, several carloads of machinery have been sent here for installation.

ELKIN, N. C.—The Winston-Salem Plant of the Chatham Manufacturing Company soon will be moved here and placed in a building to cost \$500,000.

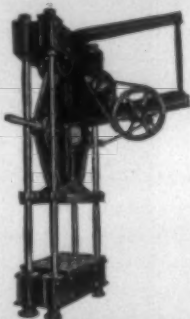
President Thurmond Chatham of the company, in making the announcement, said the new building would have 145,000 square feet of floor space. A warehouse also may be built.

Chatham said that his pay roll here would increase from \$21,000 to \$35,000 after the consolidation.

The Winston-Salem division, engaged in finishing and shipping, was established fifteen years ago.

About 650 employees will be affected by the transfer.

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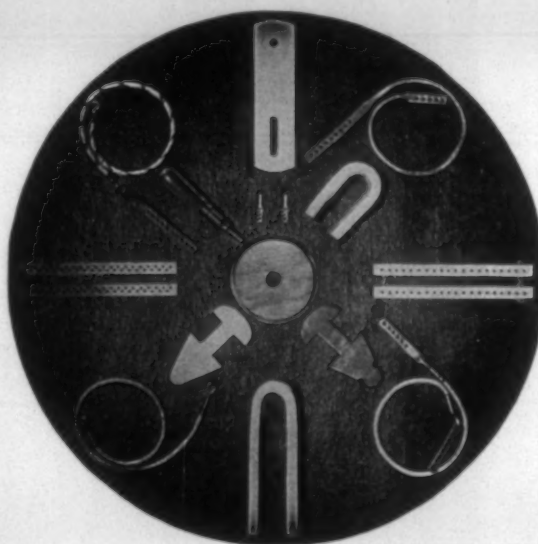
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Cotton Goods Markets

New York.—Discussion on the possible effects of the 32½-cent wage minimum recommended by the Industry Committee No. 1 for the cotton textile industry, and the possibility of curtailment among print cloth mills, has held the center of interest in the market for the past several days.

The consensus of opinion is that the establishment of the 32½-cent wage will not be a seriously disturbing factor to the market for most goods. Very low quality goods, manufactured in marginal mills which pay very low wages, will be affected more than any other type, while the better class of mills, manufacturing a quality product, in most cases have a minimum of that amount or more at the present time.

Customers of print cloth mills are waiting for some definite news about the proposed curtailment of print cloth mills, and are expecting to hear of a definite curtailment program beginning at once. As a result of this feeling there has been a pickup in the number of inquiries for this type of fabric, with buyers trying to shade the open quotations a sixteenth to an eighth of a cent. It is reported that most of the mills are holding firmly to their quotations and are turning down offers for anything lower.

Actual trading has been rather listless, with orders placed for only spot or nearby delivery.

Another factor that has been disturbing to the market for some time is the feeling of uncertainty that prevails throughout the entire cotton textile industry as to what action the government will take to solve the problem of the tremendous amount of cotton held by it. One scheme follows another so rapidly that there is no possibility of any feeling of confidence until something definitely is done or the matter definitely dropped for the year.

With most of the attention centered on the print cloth situation, since the print cloth market has a great deal to do with the confidence of the other branches, most other constructions of goods have been featureless. Some business has been done, but the volume has been too low to be of particular note.

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Cotton Yarn Markets

Philadelphia, Pa.—The immediate effect, on the cotton yarn market, of the 32½-cent minimum wage proposed by Industry Committee No. 1 for the cotton textile industry was not startling. There was a stiffening of prices on the lower grades of yarns, which have been causing some confusion in the minds of customers because they could not understand the spread in price quality yarn has largely been made in a comparatively few old mills, utilizing obsolete machinery and paying low wages, and it is inevitable that most of these mills must modernize or go out of business under the operations of the Wage-Hour Law.

For the majority of the yarn producers, the minimum of 32½ cents will not have a great deal of effect on the labor cost structure. In most cases the proposed wage will directly effect only a very small number of the employees of a mill, with the wage spread between skilled and unskilled labor up to the individual mills to handle.

With the customers accepting the committee's recommendations as certain to be approved, many of the larger users are placing orders now for considerable quantities of yarn for early delivery in order to protect themselves against the increased labor costs. The probable date that the minimum will go into effect is July 1st, according to reports, and it is likely that deliveries will be called for in increasing volume up until that date. Mills with yarn stocks now will probably be able to reduce these stocks almost completely during the next couple of months.

General business conditions seem to be improving, and it is noted that retail sales have been picking up of late. Retailers entered into 1939 with lower than normal inventories in most localities, and they have not been stocking goods at a more than normal rate as their business volume has improved. As a result of this, most of the deliveries of cotton yarns have been for immediate use by the customer for retail distribution, and the mills have been carrying the inventories that in the past have largely been carried by the jobbers and wholesalers.

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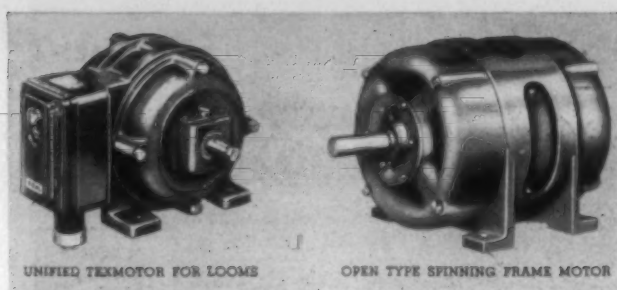
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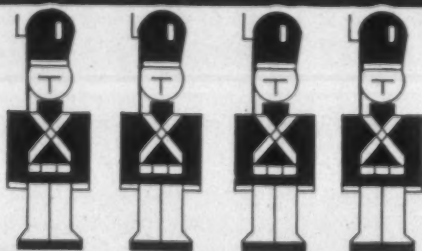
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ATLANTA, GA

New College Textile Building Is Started

Raleigh, N. C.—A permit for construction of N. C. State College's new \$325,000 textile building has been issued by City Building Inspector H. C. Davis. The J. A. Jones Construction Company of Charlotte holds the general contract for the structure. Work has already begun on the site, located on the campus proper.

Patent Awarded To High Point Man

Washington, D. C.—Edwin P. Sherman of High Point has been awarded a patent on a bleaching process, the United States Patent Office said March 16th.

Sherman's invention is for use on mercerized cotton and rayon yarns and involves four original ideas. The High Point man had filed applications for his patent originally March 11, 1937, later refiling when his original application was divided.

He has assigned patent rights to the George E. Sherman Company, Inc., of Brooklyn, N. Y.

First Large Shipment of Cotton Covered Bales

The first large shipment of Southern cotton packed in cotton bags to be exported was loaded recently at the public cotton warehouse in New Orleans, La., for Genoa, Italy, aboard the Italian freighter *Ida Z. O.* of the Creole-Odero Line.

A large delegation of individuals interested in the cotton industry was at the dock to witness the loading of 609 bales of cotton shipped by the American Cotton Co-operative Association and wrapped in cotton bags manufactured by the Lane Cotton Mills.

Cannon Mills Net \$2,277,580 in 1938

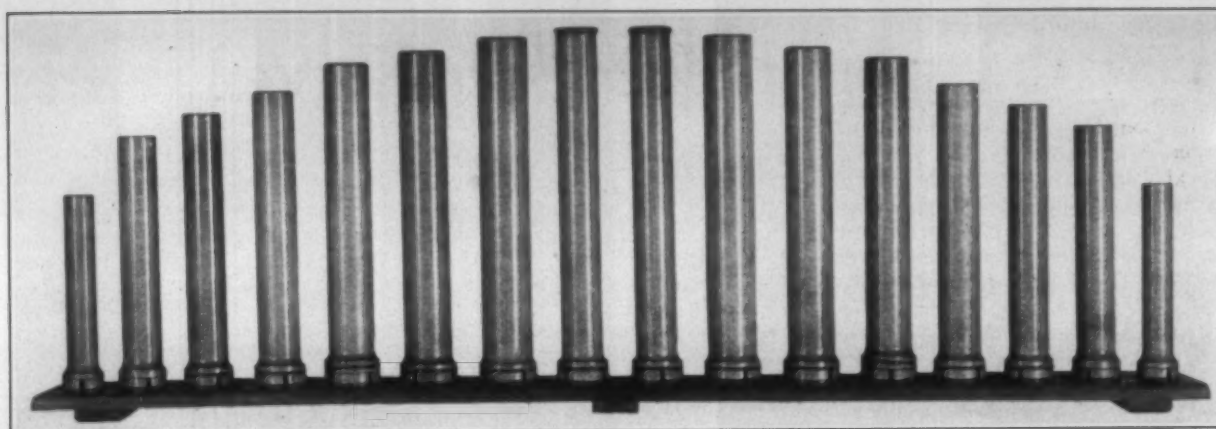
Despite a decline in net sales from \$40,252,621 in 1937 to \$37,572,191 in 1938, Cannon Mills Company, including subsidiary, obtained a slight increase in net profit after all deductions. For 1938 the company shows a net of \$2,277,580, equal to \$2.31 per share on 987,800 no par common shares, after deducting 12,200 shares held in the treasury, against \$2,231,759, or \$2.26 per share on the same number of shares in the preceding year.

Cannon transferred \$1,042,853 to earned surplus, after deducting dividend payments of \$1,234,727 for 1938, so that after a miscellaneous charge of \$1,937, there was a surplus of \$13,109,907 at the end of the year, against \$12,068,991 at the beginning of 1938.

The report for the year points out that, as in prior years, the accounts of Courtenay Manufacturing Company, in which a controlling interest is owned, have not been included in the consolidated statement. For the periods from the date of acquisition to December 31, 1938, it is pointed out, Courtenay had a net deficit, of which the portion applicable to the investment amounts to \$67,351, including \$57,901 for 1938.

Cannon closed 1938 with total current assets of \$23,530,251, against total current liabilities of \$3,070,540. At the end of 1937, the company had quick assets of \$22,336,323 and current liabilities of \$2,907,388.

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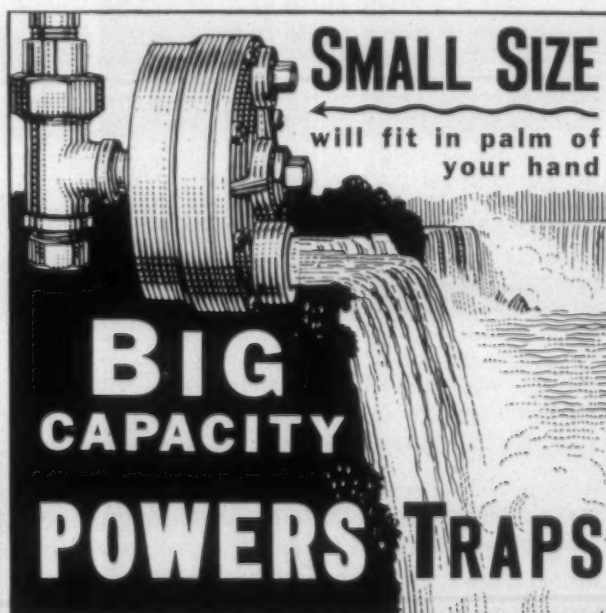
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Cotton Council Opens Public Relations Drive in Mississippi

Jackson, Miss.—A public relations program, designed to sell the National Cotton Council to the cotton farmer of the deep South, has been launched formally here with the opening of offices in conjunction with the Mississippi Advertising Commission.

Officials of the cotton council, which was formed last November at Memphis, Tenn., disclosed they are planning to open an advertising campaign within several months that will make Americans "cotton conscious" when buying apparel or any other products made with cotton.

Ed Lipscomb, director of the Mississippi Advertising Commission, is acting as public relations head for the council to help the organization get off to a good start.

Besides increasing domestic consumption, primary aims of the council include modification of existing laws against cotton or cottonseed products, lowering of high tariffs which cause other countries to stop buying cotton from the United States and promotion of trade agreements.

While neither wholesalers, retailers nor manufacturers of clothes are being asked to join or contribute to the cotton council, officials expect these groups to co-operate with the council.

\$200,835,261 in Cotton Loans

The Commodity Credit Corporation, through March 23rd, had made advances on 4,383,749 bales of cotton from last year's crop, according to the New York Cotton Exchange. The loans aggregated \$200,835,261 and represented an average of 8.80 cents a pound. Through March 16th the government agency had made loans on 4,363,702 bales. The latest available figure on repossession of cotton by borrowing growers is 26,879 bales.

Home Candlewick Tufters Ask Andrews End Minimum Wage

Dalton, Ga.—Petitions bearing the names of more than 4,000 persons engaged in home-tufting of candlewick bedspreads in the Dalton area have been filed in Washington with Elmer F. Andrews, administrator of the wage and hour laws, asking that action be taken to relieve the industry of the minimum wage provision which they assert threatens to kill it.

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This compares with net profit of \$2,-303,815 in the previous fiscal year.

Total shipments for 1938 were slightly greater than in 1937.

Sea Island Cotton

Production Gains 150%

Athens, Ga.—E. C. Westbrook, Georgia Agricultural Extension Service cotton specialist, reported a 150 per cent increase over 1937 in the production of Sea Island cotton in Georgia last year.

Westbrook said a compilation based on county agents' reports showed that 1,692 farmers in forty-eight south Georgia counties produced 2,338 bales in 1938 on 15,708 acres, for an average of 59 pounds of lint cotton per acre. In 1937, the Georgia Sea Island production was 900 bales on 4,500 acres, an average of 80 pounds to the acre; and in 1936, it was 71 bales on 300 acres, an average of 94 pounds per acre.

In a special survey among 362 Georgia Sea Island growers to determine various factors, the cotton specialist said he found that this group had an average yield of 66 pounds per acre on 3,667 acres, for which they received an average of 21 cents a pound. The average amount of

fertilizer used before planting was 316 pounds an acre. Forty-two of the group used poison for boll weevil control.

Two of the 362 Sea Island cotton farmers reported a production of 250 pounds of lint cotton per acre. Five produced between 200 and 249 pounds per acre.

Westbrook said Sea Island cotton planted in March generally made larger yields than that planted later. He cited the heavy boll weevil infestation during 1938, and pointed out that the summer rainy season, coming at a critical time for the maturing cotton, resulted in an undesirably large weed growth among cotton plants.

North American

Rayon Net \$471,180

North American Rayon Corporation reported net profit of \$471,180 for the year ended December 31, 1938, after all charges, including \$1,137,258 for depreciation and \$77,840 for Federal and State income taxes.

Bollworm Fund

Requested by Roosevelt

President Roosevelt asked Congress to approve an appropriation of \$460,000 to aid the Department of Agriculture in eradicating the pink bollworm from Texas cotton fields.

It would supplement funds already approved for the work in cotton States and would be used in eradication and control projects after the 1939 Texas cotton crop is harvested. Texas would be required to match the additional \$460,000 with cash or its equivalent in labor and equipment.

Cotton Style Show

Kinston, N. C.—Cotton costumes costing a maximum of \$1.50 each will be worn by 300 high school girls in a style show at the annual music festival here March 29th.

The contestants are required to make their own costumes of native material.

Carolina Group Discusses Mill Operations Problems At Spring Meeting

(Continued from Page 8)

Mr. Barden: This gentleman has a problem of slubs getting in his cloth. They come, it would seem, from his quills or out of his shuttle box. He wants to know if anyone has a remedy for that. I think perhaps some of the spinners might answer that. Occasionally we find that quills come from the spinning room with a little lump of lint at the top of the hole. Sometimes slubs come from the shuttle box.

Question: What kind of filling—single or double?

Mr. C: Single. We spin six or eight numbers there—10s to 3s and 4s.

Mr. Barton: Does it seem to be a limp type of slub or hard?

Mr. C: It seems to come from the filling. We have a piece an inch or an inch and a half long that seems to have been cut off clean at each end, as if cut with shears.

Mr. Barton: That could come from your knife, I should think.

Has anybody a remedy for that?

Mr. D: All of us have a considerable amount of that trouble who have ever had much experience with weaving. Some of those ends, we find, come out of the end of the quill and jump off into the cloth. I have stood at the loom and watched them do that. They will cause slubs in the cloth. Sometimes there is not only filling but lint. You can prevent some of that by blowing your bobbins and by keeping them cleaned out.

Mr. Barton: As to the oil coming from the overhead bearings, I think the way to eliminate that would be to have proper buckets—drip buckets, etc.—on the shafting.

Mr. Roberts: I have had some experience where bearings on overhead shafting have dropped down oil on the machinery and floors. If the man who fills those bearings

will not fill them up so high it will eliminate that. I think if you will lower the oil it will eliminate that drip-page from the shaft. On your cams and gears of looms there are several products, tenacious and of long fiber, that will meet your problems. Again you must put on just a little there. The tendency is to put on too much. If you cut it down you will find you have less trouble from your cams.

Mr. C: We have some trouble with oil flying off from the gears.

Mr. Roberts: I would use grease there.

Shedding on Beam Dyed Warps

Mr. "E": I should like to ask this question. We have a lot of shedding in our weave room, where we run a lot of beam-dyed warps. It looks to us as though we have more shedding on the beam-dyed warps than on the white warps. I should like to ask if anyone running that kind of warp has had the same experience. It looks to us as though forcing the air through the beam loosens up the fiber on there and causes more shedding.

Mr. "F": We used dyed warp direct from the machines and the slashers; we do not dry these warps. Of course, we pump air through them and dry them out as best we can, but we have less shedding on the dyed work than on the white work. I might say that we use a very thin-boiling starch and think we get better penetration. On the warps dyed on the beam we have very little shedding; in fact, less than we have on the white. It might be that a change in your starch would help you. It seems to me that beam-dyed warp would certainly be in better shape to take penetration than other warp. I might say that we use a 60 fluid starch.

Question: What percentage of moisture is there in your beam when you put it on the slasher?

Mr. "F": It is pretty hard to say what the percentage

(Continued on Page 37)

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MASTER MECHANICS' SECTION

Horsepower Ratings Tables For Leather Belting

By L. H. Skougor, Research Engineer, American Leather Belting Association

THE long and deep felt need for belt ratings, by some universally recognized authority for the leather belt capacities, has recently been met by the American Leather Belting Association in the publishing of their horsepower rating tables.

In the past the user and purchaser of leather belting has been left entirely on his own in designing belting for his individual applications, and few mill men have had the time and facilities to segregate from the numerous publications over the past decade what can be considered a reliable and yet economical basis for leather belt rating.

The existant publications in many instances were at some disagreement of what constituted good belting practice, and theories set forth in older publications have since, in many cases, been revised and disproved through practical application.

These new tables now make it possible for the designer and purchaser to set up his own specifications rather than segregate them from a number of recommendations, and choose one without having any other basis to rely upon than one of many individuals who might be competitively involved.

The American Leather Belting Association tables are based on the performance of modern and up-to-date belting and are not based on one particular authority's theory, but are a correlation of scientifically measured tests and field data.

Table I lists horsepower transmission capacities for belts one inch in width at varying speed with the same given large size pulley throughout the tests. The tests were run at Cornell University by Ralph Jones on the most up-to-date and modern equipment available in the country, and all variables were carefully measured rather than involving any theoretical shortcuts and computations. It was a surprising thing that many of the existant formulas and theories concerning these variables were found to be inaccurate in checking with practical measurement. The figures in this table do not represent peak load ratings, but are based on proper tensions and factors of safety, so that when corrected through the factors in Tables II and III, a properly designed drive will result.

It will be noted that the horsepower transmitted in inch of width increases with the speed of the belt.

DIRECTIONS FOR USE

TO FIND WIDTH OF BELT REQUIRED

Divide name plate reading of prime mover or nominal load by values in Table I, Table II, Table III. (See Example 1.)

TO FIND RATING OF A BELT

Multiply belt width by values in Table I, Table II, Table III. (See Example 2.)

TABLE I
HORSE POWER PER INCH OF WIDTH

BELT SPEED FEET PER MIN.	SINGLE PLY		DOUBLE PLY			TRIPLE PLY	
	*11/64"	*13/64"	*18/64"	*20/64"	*23/64"	*30/64"	*34/64"
	MEDIUM	HEAVY	LIGHT	MEDIUM	HEAVY	MEDIUM	HEAVY
600	1.1	1.2	1.5	1.8	2.2	2.5	2.8
800	1.4	1.7	2.0	2.4	2.9	3.3	3.6
1000	1.8	2.1	2.6	3.1	3.6	4.1	4.5
1200	2.1	2.5	3.1	3.7	4.3	4.9	5.4
1400	2.5	2.9	3.5	4.3	4.9	5.7	6.3
1600	2.8	3.3	4.0	4.9	5.6	6.5	7.1
1800	3.2	3.7	4.5	5.4	6.2	7.3	8.0
2000	3.5	4.1	4.9	6.0	6.9	8.1	8.9
2200	3.9	4.5	5.4	6.6	7.6	8.8	9.7
2400	4.2	4.9	5.9	7.1	8.2	9.5	10.4
2600	4.5	5.3	6.3	7.7	8.9	10.3	11.0
2800	4.9	5.6	6.8	8.2	9.5	11.0	12.1
3000	5.2	5.9	7.2	8.7	10.0	11.6	12.8
3200	5.4	6.3	7.6	9.2	10.6	12.3	13.5
3400	5.7	6.6	7.9	9.7	11.2	12.9	14.2
3600	5.9	6.9	8.3	10.1	11.7	13.4	14.8
3800	6.2	7.1	8.7	10.5	12.2	14.0	15.4
4000	6.4	7.4	9.0	10.9	12.6	14.5	16.0
4200	6.7	7.7	9.3	11.3	13.0	15.0	16.5
4400	6.9	7.9	9.6	11.7	13.4	15.4	16.9
4600	7.1	8.1	9.8	12.0	13.8	15.8	17.4
4800	7.2	8.3	10.1	12.3	14.1	16.2	17.8
5000	7.4	8.4	10.3	12.5	14.3	16.5	18.2
5200	7.5	8.6	10.5	12.8	14.6	16.8	18.5
5400	7.6	8.7	10.6	12.9	14.8	17.1	18.8
5600	7.7	8.8	10.8	13.1	15.0	17.3	19.0
5800	7.7	8.9	10.9	13.2	15.1	17.5	19.2
6000	7.8	8.9	10.9	13.2	15.2	17.6	19.3
Minimum Pulley Diameter	Belts Under 1" Wide		Belts 1" & Over Wide				
	3"	5"	6"	8"	12"	20"	24"
These are the minimum allowable pulleys for the above thickness belts.							

For Belt Speeds Over 6000 Feet Per Minute Consult a Leather Belting Manufacturer.

With the work in Table I completed, it was necessary to establish a factor to compensate for the variables in-

troduced, such as changing the effective area. These same tests were therefore run with varying pulley diameters and center to center distances resulting in the correction factors as shown in Table II. These tests were in the same manner run through a practical and yet scientific series of measurement rather than using any theoretical formulas or short cuts. It will be noted that

The requirements of various industries often introduce adverse conditions that must be taken into consideration, and their values can not be extracted from the factors as represented in a laboratory test.

It is necessary to belt a drive for peak loads that will be encountered. The nameplate rating of a motor is not a true indication of the peak loads that may be met and

TABLE II
CORRECTION FACTOR FOR CENTER DISTANCE AND SMALL PULLEY DIAMETER

Diameter Small Pulley Inches	CENTER DISTANCE IN FEET															
	Up to 4'		6'		8'		10'		12'		15'		20'		25' & Over	
	Tight Side		Tight Side		Tight Side		Tight Side		Tight Side		Tight Side		Tight Side		Tight Side	
	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW
3"	.45	.45	.46	.47	.47	.48	.47	.49	.48	.50	.49	.52	.48	.54	.48	.55
4"	.53	.53	.54	.55	.55	.57	.56	.59	.57	.61	.58	.63	.59	.65	.59	.66
5"	.59	.59	.60	.62	.62	.64	.63	.66	.63	.68	.65	.70	.66	.72	.66	.74
6"	.62	.62	.63	.65	.65	.68	.66	.70	.67	.72	.68	.74	.69	.76	.70	.78
8"	.66	.66	.67	.69	.69	.72	.70	.74	.71	.76	.72	.78	.73	.80	.74	.82
10"	.68	.68	.70	.71	.71	.74	.73	.77	.73	.79	.75	.81	.76	.83	.77	.85
12"	.70	.70	.72	.74	.73	.77	.75	.79	.76	.81	.77	.83	.78	.86	.79	.88
15"	.73	.73	.74	.76	.76	.79	.77	.82	.78	.84	.80	.86	.81	.89	.82	.91
18"	.75	.75	.76	.78	.78	.81	.79	.84	.80	.86	.82	.89	.83	.91	.84	.93
24"	.77	.77	.79	.81	.81	.84	.82	.87	.83	.89	.85	.92	.86	.94	.87	.96
30"	.79	.79	.81	.82	.82	.86	.84	.89	.85	.91	.87	.94	.88	.96	.89	.98
36"	.80	.80	.82	.84	.83	.87	.85	.90	.86	.92	.88	.95	.89	.98	.90	1.00

Consider gravity idler and pivoted drives with tight side of the belt next to the pivot point as having 25 foot centers. For pivot base drives where tight side of the belt is away from the pivot point, do not use tables but consult a Leather Belting manufacturer.

TABLE III
SERVICE CORRECTION FACTORS

Atmospheric Condition	Clean, scheduled maintenance	1.2
	Normal	1.0
	Oily, wet or dusty7
Angle of Center Line	Horizontal to 60 degrees from horizontal	1.0
	60 to 75 " " "9
	75 to 90 " " "8
Pulley Material	Fibre on motor and small pulleys	1.2
	Cast iron or steel	1.0
Service	Temporary or Intermittent	1.2
	Normal	1.0
	Important or continuous8
Peak Loads	Light, steady load such as: steam engines, stream turbines, Diesel engines, and multi-cylinder gasoline engines	1.0
	Jerky loads, reciprocating machines such as: normal starting torque squirrel-cage motors, shunt wound D. C. motors, and single cylinder gasoline engines8
	Shock and reversing loads, full voltage start such as: wound rotor (slip ring) motors, synchronous motors6

when gravity idlers and pivoted motor bases are used, it was found that the factor for center line distances of 25 feet and over can be substituted for the effect of controlled tensions in pivoted bases and increased effective area of the gravity idler.

By setting Tables II and III up as correction factors a more concise and flexible table is the result.

the correct overload capacity and torque characteristics of various motors are not always available to the mill man. To insure against under-belted and premature belt failure, overload ratings of the motor, atmospheric conditions, service, etc., must be brought into the calculation to assure satisfactory belt performance. It is fully realized that conditions in isolated cases exist which may not be

TABLE IV

THICKNESS SPECIFICATIONS FOR FLAT LEATHER BELTING Approved and Adopted by American Leather Belting Association	
Medium, Single Ply, 11/64" Average Heavy, Single Ply, 13/64" Average	<p>"All thicknesses in this table are average thickness in inches, and should be determined by measuring 20 coils and dividing this total by the number of coils measured. In rolls of belting containing less than 20 coils, the average thickness should be determined by measuring all the coils in the roll. Allowable tolerances for all thicknesses plus or minus 1/64th inch from above averages."</p> <p>Uniformity: No point in single belting shall be more than 3/64" thicker or more than 2/64" thinner than the average thickness. With doubles, the tolerances shall be 2/64" thicker or thinner than the average.</p>
Light, Double Ply, 18/64" Average Medium, Double Ply, 20/64" Average Heavy, Double Ply, 23/64" Average	
*Medium, Triple Ply, 30/64" Average *Heavy, Triple Ply, 34/64" Average	
<p>*TRIPLE PLY: These are averages for general usage. Most triple ply belts are usually constructed for particular drive conditions. TOLERANCES FOR SINGLE AND DOUBLE PLY BELTS DO NOT APPLY. Consult a Leather Belting Manufacturer for specific information concerning thickness and construction of 3 Ply Belts.</p>	

covered by this table, and exceptions must be made in those instances.

A caution should be made that in no instance should a belt rating be taken from any one table without using the proper correction factor from the other two to compensate for the individual condition surrounding the particular application.

In Figure A the available leather belting horsepower curves have been plotted. They have been compiled from practically all existing manufacturers and authorities. It

will be noted that the curve, as representing the factors given in the A. L. B. A. Table I, falls by chance as a fair average of these curves. The curves that fall below the A. L. B. A. do not necessarily mean that more conservative figures have been used. These curves represent the rating as a result of Table I, and are conducted on large size pulleys. In many cases when the correction factors are applied the A. L. B. A. curve actually will fall below these curves for particular drives.

A limitation is necessarily set in the scope of tables of

EXAMPLE No. 1

PROBLEM:—Select belt for following drive—

Motor— 10 H.P. 1750 R.P.M., line start, induction
Pulley 6" diameter x 6 1/4" face, fibre.

Compressor—Started automatically against pressure.
Pulley 30" diameter x 6 1/2" face.

Conditions— Tight side of belt below, pulleys 6 feet center to center, center line approximately horizontal, important refrigeration service, normal atmospheric conditions.

SELECTION OF FACTORS:

6x3.14x1750
12 = 2750 feet per minute
Belt Speed 12
From Table I, LIGHT DOUBLE BELT suited for 6" diameter pulley
From Table I, LIGHT DOUBLE BELT will transmit 6.7 H.P. per inch of width at 2750 F.P.M.
From Table II, FACTOR for center distance and small pulley diameter = .65
From Table III, Atmospheric condition 1.0
Angle of center line 1.0
Pulley material 1.2
Service .8
Peak load .6

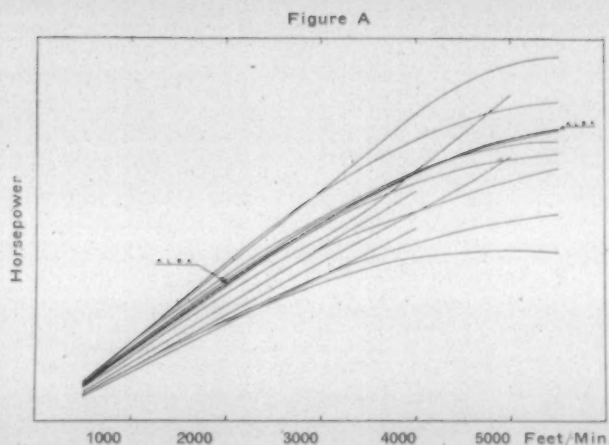
CALCULATION: 10
6.7x.65x1.0x1.0x1.2x.8x.6 = 3.99"

Therefore, use 4" LIGHT DOUBLE BELT

(Continued on Next Page)

this type, and where speeds over 6,000 feet per minute are reached, a leather belting manufacturer should be consulted. This same applies in cases where a pivoted base is installed with the tight side away from the pivot point.

The offer of the A. L. B. A. to render a consulting engineering service to users of leather belting, where special conditions exist, has been greeted with considerable enthusiasm from many men confronted with transmission problems. And with modern leather belting as it is today, conditions are being met in industry that some years back were beyond the limitations of the product.



EXAMPLE No. 2

PROBLEM: Determine capacity of 8" Heavy Double Belt on following drive—

Lineshaft— 200 R.P.M., 48" diameter x 12" face cast iron pulley

Fan— 600 R.P.M., 16" diameter x 12" face cast iron pulley, requiring 35 H.P. at this speed.

Conditions—Tight side above, 16 foot centers, drive nearly vertical, 8 hour per day operation, exhausting from woodworking shop, dusty conditions.

SELECTION OF FACTORS:

	$48 \times 3.14 \times 200$	
	$\div 12 = 2500$ F.P.M.	
Belt Speed	12	
From Table I, HEAVY DOUBLE BELT	is suited for 16" diameter pulley.	
From Table I, HEAVY DOUBLE BELT	will transmit 8.55 H.P. per inch of width at 2500 F.P.M.	
From Table II, FACTOR for center distance and small pulley diameter	$= .80$	
From Table III, Atmospheric condition	.7	
Angle of center line	.8	
Pulley material	1.0	
Service	1.0	
Peak load	1.0	

CALCULATION: $8 \times 8.55 \times .80 \times .7 \times .8 \times 1.0 \times 1.0 \times 1.0 = 30.6$ H.P.

Therefore, belt not suited for 35 H.P. load.

NOTE: This belt can be used if any one of the following changes are made—

1. Use fibre pulley on fan.
2. Reduce angle of drive to 60 degrees from horizontal.
3. Protect drive from dust.
4. Increase pulley diameters to 60" and 20".

If it is not practical to change the drive, use a 10" HEAVY DOUBLE BELT.

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Carolina Group Discusses Mill Operations Problems At Spring Meeting

(Continued from Page 32)

of moisture is, but we blow as long as we can get any water out.

Mr. "B": I should like to ask Mr. "A" what fluidity starch he uses.

Mr. "A": Of course, I understand that various manufacturers' products do not run the same. We use a very thin starch.

Mr. "B": What staple of cotton?

Mr. "A": 15/16".

Mr. "B": We use beam-dyed warps, but we dry them.

Mr. "A": What fluidity starch do you use?

Mr. "B": We use 40.

Mr. "A": I think that may be the trouble. We use 60, and that is not any too thin. I am sure 60 fluidity would help you if you are using 40.

Mr. Barton: Sam, what starch are you using?

Mr. "C": We are using potato starch. I might say this; we think we get along better with dry warps than with wet warps. We work on the theory that if a warp is already saturated with water when it goes into the size box the size has very little chance to get into the yarn; it just gets on the outside. Of course, the construction of the work has much to do with the amount of shedding you have. Coarse work, with few picks to the inch, will not have as much shedding as work with more picks to the inch.

Mr. Barton: What size yarn is this on?

Mr. "C": 10s, 14s, 20s.

Mr. Barton: On about 15/16" cotton?

Mr. "C": Yes, sir.

Mr. "G": I should like to ask the gentleman who referred to dyed work if it is raw stock dyed or dyed yarn.

Mr. "F": We do not use any raw stock dyeing. About fifty to sixty per cent of our work is dyed.

Mr. "G": The rest of it in the grey?

Mr. "F": Yes, sir.

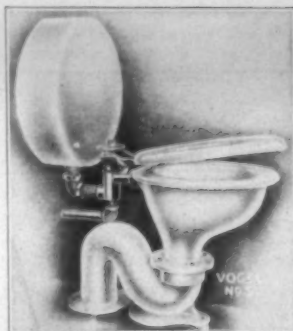
Mr. Barden: Are there any other weaving questions? Does nobody else have trouble making good cloth? I imagine we shall all go down into our weave rooms on Monday morning and have plenty of them.

Mr. "B": My weaver here has brought up a point which I shall ask him to state. It might help out somebody on this shedding.

Mr. "H": We find that we can eliminate quite a bit of shedding by the setting of our stop motion. We have a pretty heavy pick and of course have trouble with shedding. If the stop motion is too low it draws the thread so tight that the yarn will be cut. We try to adjust our stop motion so as to get equal tension on the yarn, if possible. I do not say that will eliminate all of the shedding. If the stop motion is too low it draws the thread a little soft and the size a little tight, of course you will have trouble with your work, but we have discovered we

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have less trouble with the shedding if we move our stop motion back just as far away from the harness as we can get it.

Mr. Barton: Does that shedding occur on a dobby loom or a jacquard?

Mr. "E": On jacquard looms. Of course, that would occur on dobby looms, too.

Mr. Barton: It is an extremely wide loom, isn't it?

Mr. "E": Yes, sir.

Filling Sloughing Off

Mr. Barden: Is there anything else on weaving? Is anyone troubled with the yarn's slipping off the quill?

Mr. "H": The biggest part of the trouble in the weave room with filling sloughing off, or a big portion of it, comes from too much power or too much tension on the check strap or running the box too loose. Most of the trouble is from running too much power. You have to adjust the power and adjust the tension on your binder.

Mr. Barton: Has anybody found anything that can be done in the spinning room to eliminate that trouble?

Mr. "I": The best thing I have found so far is to run the ring rail down fast and up slow. That has done more to help it than anything else I have found.

Mr. Barden: On what kind of work is that?

Mr. "I": Coarse work.

Chairman Jennings: Is the filling soft twist?

Mr. "I": Yes, sir.

Mr. Barton: I should like to hear some spinners talk about that a little. I happen to be in a rayon mill, as I said a while ago, and we have lots of trouble with that. The filling will hardly stay on the quill at all. We try to overcome it by checking the picking on the loom, and, of course, we try to overcome it by the winding. Rayon is a little different from cotton; it has to be wound on a winder, not on a spinning frame. I should like to know if anyone can help me along that line. We have to wind it on there without stretching the yarn and yet get it tight enough to stay with the lowest amount of power you can have.

Mr. "J": I thought we would get a rise out of somebody with that—the filling sloughing off. As to the problem of winding rayon, we always lengthen the stroke a little bit and cut down the size at the top of the bobbin. The same thing applies in the spinning room; if you have trouble with the filling sloughing off the first thing is to lengthen the stroke a little. You can get a little more yarn on the bottom of the bobbin if the stroke is short, but if the filling sloughs off and gives us trouble we lengthen the stroke a little.

Mr. Barton: Are there any other weaving questions? If not, I thank you fellows for the discussion.

The remainder of the discussion will be published in the next issue.

11,941,702 Bales of New Cotton Ginned

Washington, D. C.—The Census Bureau in its final cotton ginning report of the season on March 20th said 11,941,702 equivalent 500-pound bales of cotton, exclusive of linters, had been ginned from the 1938 crop. Ginnings were 18,945,028 bales in 1937 and 12,398,882 in 1936. The Agriculture Department in its final estimate in December estimated the crop at 12,008,000 equivalent 500-pound bales for 1938.

Ginnings in running bales, counting round as half bales, totaled 11,620,601, compared with 18,232,075 in 1937 and 12,141,376 in 1936. Round bales included this year totaled 157,979, compared with 326,742 in 1937 and 282,262 in 1936.

American-Egyptian cotton included totaled 20,501 bales, compared with 10,991 in 1937 and 17,551 in 1936, and Sea Island cotton included totaled 4,273 bales, compared with 4,030 and 889.

The average gross weight of the bale for the crop, counting round as half bales, was 518.3 pounds, compared with 519.0 for 1937, and 510.6 for 1936.

Ginneries operated for the 1938 crop numbered 12,279, compared with 12,838 for 1937 and 12,625 for 1938.

The ginnings by States, in equivalent 500-pound bales, for the 1938 crop with comparative figures for 1937, follow:

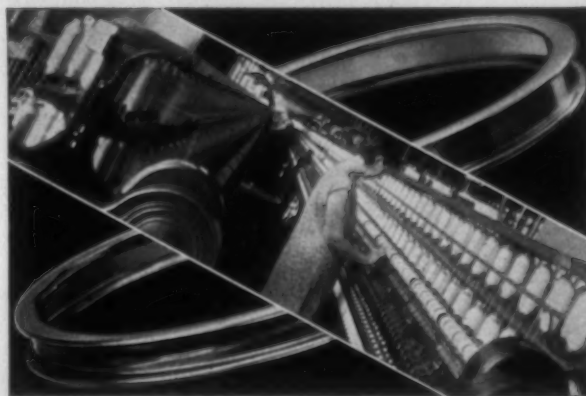
	1938	1937
Alabama	1,064,332	and 1,636,363
Arizona	191,887	and 312,908
Arkansas	1,301,236	and 1,915,206
California	414,088	and 738,700
Florida	21,950	and 34,605
Georgia	850,749	and 1,505,946
Kentucky	11,604	and 15,471
Louisiana	651,416	and 1,103,622
Mississippi	1,656,048	and 2,692,427
Missouri	329,370	and 397,226
New Mexico	92,260	and 156,409
North Carolina	398,365	and 781,483
Oklahoma	545,298	and 763,403
South Carolina	641,491	and 1,023,319
Tennessee	473,146	and 660,394
Texas	2,963,979	and 5,163,895
Virginia	11,041	and 40,379
All other States	2,341	and 3,272

Textile Patents Granted Carolinians

Patents for textile use were recently granted to Carolinians, according to Paul B. Eaton, patent attorney of Charlotte, N. C.

George R. Plott of Concord, N. C., was awarded a patent on an eccentric pin connection between the loom sword and crank shaft; whereby wire can be taken up quickly, this patent being assigned to Bahan Textile Machinery Company of Greenville, S. C.

Earl J. Wentz of Schoolfield, Va., was awarded a patent on a shuttle feeler for looms which stops the loom if the shuttle is not properly boxed. J. G. Brooks of Madison, Tenn., was awarded a patent on a thread cutter for looms having means for engaging the thread and insuring that it goes into the thread cutter. Both the Brooks and Wentz patents are licensed by Bahan Textile Machinery Company of Greenville, S. C.



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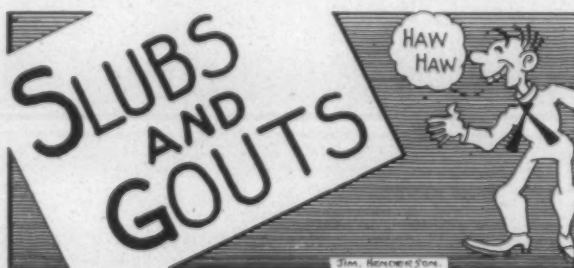
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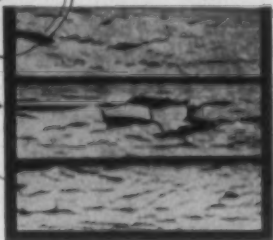
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J. H.

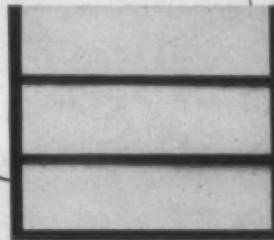


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